

# THE AMERICAN AGRICULTURIST.



Agriculture is the most healthful, the most useful, and the most noble employment of Man.—*Washington.*

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A. B. ALLEN, Editor.

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## TO OUR SUBSCRIBERS.

THE present No. of the American Agriculturist brings our Second Volume to a close, and we trust in reviewing it our subscribers will feel satisfied that we have accomplished all that we promised them in our last No. of the First Volume. Of the Editorial department, we have nothing to say, farther than we wish it had been in our power to make it better; but of the correspondence, we challenge any periodical, either in this country or in Europe, to show one equally varied and able. It spreads over the whole surface of our widely extended country; and however diversified its products, there is scarce one of any importance upon which it has not touched; and some of them it has treated more fully than they ever were before in any similar publication; and we are only repeating what has often been said to us, that our first and second volumes form the most complete work on the Agriculture of North America that has yet been published. So highly is our work prized, that in addition to the large list in the United States and the British Provinces, we have quite a number of subscribers in the West Indies, South America, and Europe; and these, as the work becomes known, are rapidly increasing.

The form of our paper is the most convenient

possible for general reading, and alike admirable for binding; the beauty of the typography, engravings, and paper, is unrivalled. All these will be continued in our Third Volume, together with such improvements in addition, as the rapid progress of this enlightened age is constantly making. Situated in the great metropolis of America, to which everything tends, it enables us to first seize on all these discoveries, and keep this periodical in constant advance of any other published in the United States.

No. 1 of our Third Volume will be promptly issued on the 1st of January, and the succeeding numbers of the work follow on the first of each month. The January No. will be sent to all old subscribers, and we trust upon its reception, that we shall not only again be favored with their names, but that they will get as many of their friends and neighbors to join our list as possible. Our terms are unprecedentedly low: Single copies \$1; Three copies for \$2; Eight copies for \$5; 62½ cents a year, or 5 cents a month, for a beautiful work of 384 pages large octavo!

When we reflect upon the amount of valuable practical matter thus annually given to the public in the American Agriculturist, we are struck with astonishment that every farmer on the continent

is not a subscriber. We *fearlessly* and *soberly* assert, that, if the precepts inculcated in a single volume of this periodical were carried into full practice by the tillers of the soil, it would be the means of adding *millions* annually to the productive wealth of the country. To bring the thing home, individually, if any person subscribing for this paper, and faithfully perusing it, will come forward at the end of the year, and honestly say that he is not benefited *five*, yes, *ten* times the amount of such subscription, we will return him his money, and take back the work. We ask for nothing for which we are not sure we shall give back TEN-FOLD. Repeated instances can be adduced, where persons reading a single article in our paper have saved or been enabled to profit several dollars by it; and these are only isolated facts of its value.

By reference to our terms on the last page, it will be seen that subscriptions must be paid in *advance*. All agents in arrears will please forward the same without delay. Remit through Post Masters as the law allows. Any one can constitute himself an Agent by remitting us the amount for three or more subscribers, deducting the commission allowed by our terms.

Our circulation will undoubtedly be greater the present year, especially in the southern and western states, than that of any other agricultural periodical, and we respectfully call the attention of advertisers to this fact. We devote the greater share of two pages for admission of advertisements, for which the terms are very moderate.

Back volumes stitched in handsome paper covers, \$1 each; bound in cloth, \$1.25.

#### CLEARING FOREST-LANDS.

As we resided upward of seven years in the western country, part of the time *hutting it in a log cabin*, and nearly the whole of it actively engaged in clearing forest-lands, and bringing them into cultivation, we profess to know something *practically* of the subject upon which we are about to write.

There are several methods of clearing land, dependant entirely upon the price of wood and timber in the neighborhood of their location. Where these are valueless, except for the purpose of fencing the farm and making its buildings, the *slashing* system of clearing is usually resorted to. This consists in taking a very large tree for the centre, and cutting it off as nearly as is possible to do so without endangering its falling. Then begin and

cut all the trees in a circle of a hundred feet or so from this centre, the same as the first, and in such a manner as to ensure their falling toward the centre one if possible. When the circle is thus cut, four men with their axes take opposite sides on the outside of the circle at the largest trees, and commence cutting on them till they fall, taking care that the four trees shall come to the ground as nearly as possible at the same time. These, in falling, generally carry all the other trees with them that they touch, and they again others; so that when the circle so cut has finished falling, nearly all the trees in this diameter of 200 feet will lie with their heads pointing to the centre, their butts out, and lapping each other like reversed shingles. Others cut the trees so as to fall in a line head to head, making them appear, when they get through chopping a swath, as if they had been raked into winrows. To lay the trees in circles or rows, requires both judgment and address; and none but experienced hands should undertake it, otherwise they will fail entirely in accomplishing their task. *Slashing* is also performed by cutting the trees and allowing them to fall as they please; but this is considered very unworkmanlike, and unless the wood and ground are very dry at the time of firing, it leaves many more logs to roll up into heaps for burning than either of the plans first mentioned.

Heavy log-rolling is not only an expensive, but an excessively laborious business, as we well know to our cost. We reckon it equivalent to digging rocks and laying stone wall; a business also in which we profess a trifle of experience. The extra number of logs usually left to be rolled after firing, let the trees be cut with all the address possible, is the greatest objection we have heard to the *slashing* system of clearing land, and although it saves labor in the first operation, unless the soil be a dry one, we would not recommend its being adopted. Where the soil abounds with clay, the land is tenacious in holding water, and if the forests growing upon it are *slashed*, the trunks of the fallen trees get so saturated with moisture, that scarce one summer in four will prove sufficiently dry to burn them. It will be necessary to let the trees slashed lie till the second summer after being cut, before they will effectually burn.

The second method of clearing land is, as fast as the trees are fallen, to cut them up into logs of convenient length, say 15 to 30 feet long, and roll them together, placing the largest at the bottom, and then pile the tops of the trees upon them, and burn when the wood becomes thoroughly dry.



The third method is to clear woodland for pastures. This consists simply in underbrushing the forest, and cutting out all the small growth, and such other trees as are likely to be prostrated in a high wind, and piling them in heaps and burning when dry, and then sowing grass seed and harrowing it in. Woodland pastures answer very well in the latitude of 40 degrees, and south, north of 40 degrees, the summers are usually too short for reserving woodland pastures to any great advantage, except the soil be calcareous, and blue grass comes in naturally.

Where wood and timber are valuable, the method we adopted in clearing the land, was first to completely underbrush and pile it; cut out the wood, split and pile that; and lastly, the timber, cutting up the tops of the timber trees if not suitable for wood, and piling them. After removing the wood and timber, and the top heaps and brush became dry, we burnt, thus leaving the land clean and fit for a crop.

**COST OF CLEARING.**—We have paid various prices for clearing land; from \$3 up to \$20 per acre, dependant something upon how we wanted it done, and whether it was densely or thinly wooded. Perhaps \$10 per acre may be considered an average price. We have occasionally bargained for clearing in kind; that is, we would give the wood or the timber standing upon it for the clearing, and sometimes both. If the parties clearing, cut and split the rails and made the fences, in addition to the wood and timber, we have occasionally added the free use of the land for a year or longer, according to circumstances.

**TASTE IN CLEARING.**—We have often wondered at the almost total absence of taste in clearing lands, displayed by our countrymen. They usually commence on the line of the road and take a clean sweep through their farms to the back of them, where they make a small reservation of wood and timber for use. This leaves the land completely unprotected from the fervid sun in summer, and the cold searching wind in winter; and then the horrid stumps stand out in bold relief, staring one in the face with their black charred, or rotten punky sides, for half the age of man; making one of the most desolate and dreary sights we ever looked at. Nearly all this may be obviated, and even a new country recently cleared be made to assume a handsome, cheerful appearance, by proper reservations of the original forest. Suppose the farm 100 acres, we would divide it into five 20-acre fields; or if the size of 200 acres, into 40-acre lots, and in clearing, reserve a belt of trees

around them from three to six rods wide. The advantage of these would be three-fold: 1. They would afford all the wood and timber necessary for the future use of the farm. 2. Shelter it from the rude blasts in winter, and give it shade for the stock in summer. 3. Hide the stumps and give a handsome, picturesque appearance to the country. An occasional group of trees left near the centre of the field, especially where the land was highest, would also add to the beauty and variety of the farm. The only objection we have ever heard to such reservations were, that in narrow belts and small groups, the trees were apt to be blown down. This danger may be obviated by cutting out all the tall trees, leaving the shorter and younger ones only. Left in this manner, they shade and protect each other, spread out their branches and roots as they grow, and soon strike the latter so deep into the ground, as to enable them to stand against the strongest winds. Some of the handsomest farms in Europe are thus laid out into square fields, with belts of trees around them for shade and shelter, and the profit of the wood and timber. In order to obtain these the owners have been at great expense in planting them. We have only to leave what nature has already prepared to our hand, to equal these in picturesque beauty. We wish that the owners of wild lands would consider this subject, the sight of one such farm could not but convince them of the real utility, if no other motive were wanting of adopting this course of reserving belts of trees around the fields in clearing.

May, June, and July, are the best months for cutting forests; but this is a time that the farmer can ill spare for such work; necessity, therefore, compels him to do his chopping in the winter when he has little other employment. Firing the log-heaps should take place in dry weather, and when a gentle breeze prevails.

#### WINTERING SHEEP.

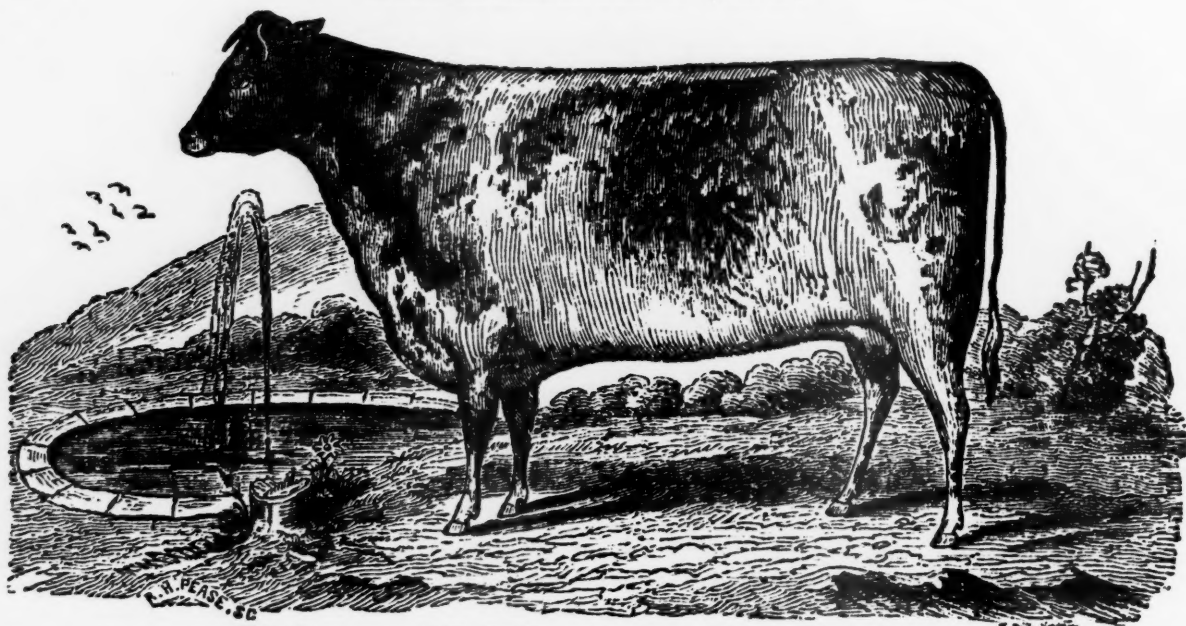
It is a prevalent notion among many of our farmers that sheep need no protection during winter, and will not do well if confined to yards. The contrary is the fact; and although it is better, perhaps, to give sheep more exercise than other stock, especially the Merino and South-Down breeds, yet they do very well in small yards, and require, at least, the protection of roofed sheds, open only on one side, and when it snows, such as can be closed all around. The sleet and rains of a northern climate, during the months of March and April, are worse for sheep than the snows of winter. Snow they easily shake off, and leave their fleeces dry;

not so with the rain. This penetrates to the skin of all but the Merino breeds, and superadded to the drenching overhead, when not protected, they are obliged to stand or lie down on cold, wet ground, than which, nothing can be more pernicious for sheep.

To prove that sheep will do well in much closer yards than they are usually accustomed to be kept in, when we were in Orange county, Mr. Pelton of Montgomery, showed us his sheep barn, 20 feet by 48, the under story of which he devoted for shelter to a flock of 70 sheep. On the south side of this is a yard, also 20 feet by 48, boarded up so close and high as to make it *dog-proof*. Here Mr. Pelton has kept his sheep for two winters, al-

lowing them to go out twice a day to drink at a spring a short distance from the yard. He takes care to salt them regularly, and feed them well; and says, with this treatment, his flock has wintered better than he ever knew it to do before. We saw the sheep, and their appearance corroborated all that Mr. P. said of them. It has been proved by repeated experiments, that sheep, when sheltered, keep on much less food than when left to run at large; and when we consider the saving of fodder, their superior health and condition, and above all, their security from destruction by dogs, no humane man or good farmer will grudge a trifling outlay to properly shelter his flocks.

DURHAM HEIFER DAISY.—(FIG. 61.)



*The Property of E. P. Prentice, Esq., Mount Hope, N. Y.*

DAISY is out of Matilda, by Leopard. She won the gold medal at the Show of the American Institute, October, 1840. The artist has unfortunately made her limbs disproportionately fine, and not done her exact justice in other respects. To our eye she shows much better in the yard than in print, and is now a handsome full-grown cow.

#### FARM OF MR. WILLIAM K. TOWNSEND.

THIS farm is situated on Prospect Hill, about 3 miles from New Haven, and the principal part of it lies sloping to the bay on the east side, a short distance from the old fort. It consists of 170 acres, 45 of which is salt meadow, 15 woodland, and the balance arable. Mr. Townsend came into possession of this farm about 14 years ago. It was then in a very neglected state, with scarcely a comforta-

ble building of any kind upon it; the fences all down, and much of the land overrun with bushes. The meadows averaged less than one ton of hay to the acre, and the other crops were proportionably meager. It had been regularly skinned, and if a tenant brought the year about upon it and paid a small rent, it was all that was expected, and he had hard work even to do that.

Upon moving on to this unpromising place, the first thing undertaken by Mr. Townsend, was to cut down the bushes and grub them up; drain the pond holes and wet places; and then pick up the stone, and all the spare time which could be had from other duties, employ it in relaying the old fences and constructing new ones. At the same time he put the half-starved stock on the place into good condition, and then commenced making manure, by gathering together all the rubbish to be



found on and about the premises, sea-mud on the beach, &c., and place them in his barn-yard. In this way, the second spring after occupancy, he had a large compost heap of about 200 cart-loads, with which to commence enriching his land.

**ROTATION OF CROPS.**—Mr. Townsend decided upon keeping a herd of about 20 cows for the purpose of sending milk to New Haven; milk, therefore, is his main crop, and for the production of this and keeping a few pigs for sale, he adopts his rotation.

The first year from 20 to 50 loads of manure are carted on to a sod field, spread broad-cast, and then plowed under. This is usually planted with corn, and manured in the hill with a small quantity of ashes, poudrette, or rotted stable manure. This gives the crop a good start till the roots reach the manure plowed under, which, together with the decomposing sod, keeps it rapidly growing. At the time the ears begin to form, a handful of ashes or plaster is spread on each hill, for the purpose of assisting to perfect the seed, and make the crop fuller and more abundant. As soon as glazed, the corn is cut up and bound into small stocks, and husked at leisure. Mr. Townsend prefers the variety for planting which not only yields a good ear, but rather a slender stalk, as he finds small stalks full-leaved make better fodder, and are eaten up much cleaner than the larger kinds. Such was our own practice when farming, and we do not think sufficient attention is paid to this important part of the corn crop. With this system, 70 to 75 bushels of shelled corn per acre is not an uncommon yield with Mr. Townsend.

The second year, the land is manured at the rate of 20 loads to the acre, spread broad-cast and planted with potatoes. The yield is from 200 to 250 bushels per acre. If these can be got off in season, the field is sowed with rye in the fall, and if not, with barley or oats in the spring. With the grain, the land is seeded down to grass, at the rate of 12 quarts of timothy, 4 quarts of red top, and 4 quarts of clover per acre. The meadows are usually mowed four years, and then pastured two years. They get an occasional top-dressing of compost in the fall, together with plaster in the spring, at the rate of from one to three bushels per acre; and although the land lies upon the Sound, and is constantly exposed to sea air, as remarked in our November No., the plaster has a very beneficial effect. The meadows are usually moderately pastured in the fall, but never in the spring.

In addition to the above crops, Mr. Townsend

annually sows a patch of turneps, and plants an acre of pumpkins. This last crop is produced by heavily manuring broad-cast, a piece of sod, and then turn it flat over. The hills are further enriched with hog manure, placed 10 feet apart, and two vines only left in each. An acre thus cultivated produces from 15 to 25 large cart-loads of pumpkins, which prove excellent food for milch cows. The apple and peach orchard of well-selected trees, occupies 10 acres, and is a source of some income; all the refuse fruit is fed to the pigs.

**STOCK.**—Mr. Townsend finds the Durhams and their grades make the best milkers, and in selecting these, he has had reference to such as stand well to the pail. Some of his cows will, if he wishes it, give milk from calving to calving again, though, for fear of injuring the growth of the fœtus, he usually lets them go dry from one to two months. His grade steers prove excellent working cattle, and when turned out to fatten take on flesh remarkably well. He showed a pair of the largest and finest animals two years since, at the American Institute, we believe that were ever exhibited in this city. We saw a pair of Durham bulls at work here, famous fellows, that would go along comfortably over the farm with a three-ton load.

**BUILDINGS.**—Soon after coming on to the farm, Mr. Townsend commenced erecting new buildings, which are not only handsome, but roomy and very convenient. His piggery is an excellent model to copy after, as well as the barn and stables. Every animal on the farm has a stall for itself at night in winter, and a good yard to exercise in by day. By keeping so much stock, and feeding all his produce at home, large quantities of manure are made here where formerly scarcely any was produced. If we recollect right, Mr. Townsend informed us he now makes 300 loads of manure per annum entirely from the resources of his own farm, and he meant to continue increasing his stock of it, and go on improving the land, till he can get 3 to 4 tons of grass per acre, and other crops in proportion. We think that making manure from the resources of one's own farm, is little understood as yet in this country. By properly stocking our land, draining it, and adopting a judicious rotation of crops, we are confident that there are few farms which may not be placed in an improving condition without foreign aid, and at the same time be paying a fair interest on the first investment. Such has been the case with Mr. Townsend, he not only improving his farm and his stock at the same time he

was making money from it. Success we say to such laudable ambition, and may this example be followed by others.

### Tour in England. No. 16.

**CULTURE OF WHEAT.**—One of the most pleasing sights which presented itself to our view in traversing England, was the large fields of wheat which we encountered in almost every direction, and the great average product per acre, from land that in our own country would be considered quite inferior. In case of a partial failure of this crop, the farmers of Great Britain have not, like those of America, that excellent grain, the Indian corn, to fall back upon for bread-stuffs; they have consequently a more powerful motive than we, in addition to their higher prices and greater density of population, to stimulate them to raise as large a quantity of wheat as possible. To this end, therefore, the rotation of all their crops tend—wheat as often and as much of it per acre as can be produced, consistent with keeping up, or rather at the same time improving the fertility of the land.

In our intercourse with some of the English farmers, we found them sufficiently sanguine in believing, that land might be so managed as not only to double the present average yield throughout the kingdom, but also to make it produce wheat for years in succession, without deteriorating the quantity or quality of the grain. It is impossible to say what science may yet do for agriculture; for certain it is, that by use of a compound of those manures which are known to be the best food for the plant, five consecutive crops of wheat have been taken from the same field, the amount annually increasing from 20 bushels the first year, up to as high as 50 bushels the last, of an excellent quality of grain; and single acres have been made to produce from 76 to 82 bushels. This last amount is a trifle more than has ever been grown to our knowledge in America, the highest record of which is at the rate of 78 $\frac{3}{4}$  bushels per acre. We only state these as mere examples of what can be done in increasing the production of wheat; nor is it more astonishing than obtaining from 150 to 190 bushels of Indian corn per acre, as has been recently done. The mind of the American farmer has not yet been turned so much to the production of large crops of wheat, as it has to that of corn and some other things; yet we are confident the moment it is, we shall see as large a yield recorded in the United States of this invaluable

grain per acre, as in Great Britain. But leaving what perhaps may be called fancy crops to take care of themselves, we shall proceed to the general method of the culture of wheat in England.

The first requisite is to have the land in good heart. A root crop bountifully manured always precedes wheat; or else clover, tares, or some kind of grass fed off by sheep. To be preceded by a white crop, (grain of any kind, such as barley, oats, &c.,) is considered bad husbandry, as the food in the soil necessary for the production of the wheat in perfection, would be more or less taken up by the oats or barley. Peas or beans may be succeeded by wheat, these not being considered a white crop. In his seed, the English farmer is more careful to select the best varieties than we are; he also uses a larger quantity per acre, and generally drills it in instead of sowing it broadcast upon the land. We think this quite an improvement; for by standing apart in rows from 9 to 12 inches, the wheat tillers better and more easily rids itself of an excess of moisture, the sun penetrates with greater facility among the stalks, and the air circulates more freely among it: the agitation of the crop by the wind is known to be an excellent preventive to rust and mildew. Another important consideration in sowing in drills is, that where labor is so cheap the crop can be hoed and wed out in the spring, which adds to its increase, and prevents the growth of weeds. The general amount of crop under this system of cultivation, we found to run from 25 to 40 bushels per acre; perhaps the average might be 30 bushels. The average yield of all England we think must now be full 20 bushels per acre; while that of our own country has been carefully estimated not to exceed 10 or 12; a disparity, considering our rich virgin soil, not much to the credit of our present system of farming.

Cradling wheat is not so common a practice here as with us, the sickle being preferred by the laborers to the scythe. During harvest-time, large bodies of Irish laborers come over to England for employment, the men and women working indiscriminately together; the only difference being that the women do the binding and setting up the sheaves. It is a pretty merry time with all at this season, English, Irish, or Scotch; and wherever one passes over the country, he hears the jocund song and uproarious laugh, from the numerous bands which dot the harvest-fields in motley groups.

After reaping, come the gleaners; usually superannuated old men, or women and children. It is



astonishing what numbers turn out for the scanty pittance they thus earn, painfully toiling to gather up every head and straw which the binders have left behind them. In coming up to London from Cambridge, we counted 171 gleaners in a single field not exceeding 12 acres, and upon expressing our surprise at this occurrence to a fellow-passenger in the coach, he assured us he had repeatedly seen from 400 to 500 persons in an area perhaps not more than twice the size of the one just passed; and so great was the want of employment in the country, that it was found necessary to pass a law, confining the benefit of gleaning entirely to the people of the parish where the field was situated. This argues a sad state of things for the laborers of the country; for we doubt whether the average gains per day, in gleaning, were over 15 to 20 cents, and it must be recollected that they had their own food and raiment to provide for. Still the people, generally, looked healthy, and it was gratifying to see them return from the fields at night, bearing their gleanings in twisted bands arranged in large bundles on their heads and shoulders. Among these might occasionally be seen fine blooming girls, reminding one of the tale so beautifully told in Thompson's Autumn.

"The lovely young Lavinia once had friends,  
And fortune smiled, deceitful, on her birth."

#### NEW YORK FARMERS' CLUB.

THE semi-monthly meeting of the Club took place on Tuesday the 20th November at 12 o'clock, M., at the reading-room of the repository of the American Institute in the Park; William J. Townsend, Esq., in the chair.

Mr. Wakeman presented a paper by Mr. Boswell of Philadelphia, on the subject of grafting, and proposing a plan for extending the cultivation of choice fruits as follows:—

1. Make a collection of *choice scions* of apple, pear, &c., during the months of February and March, and keep them at the Repository of the American Institute.
2. When the proper season arrives, employ some well-known practical nurseryman to *teach in a particular manner* the operation of engrafting.
3. By the above means, young men can go into the country with a knowledge of the business, taking with them the *choicest varieties of fruits* in the Union.

Mr. Boswell, who was present, stated that he had established a *system of exchanges of fruit scions*, and will furnish the Institute with those of the choicest kind—from Boston to Cincinnati.

During July and August, choice varieties of plum, cherry, peach, apricot, and nectarine, can be collected, and some nurseryman employed to *teach budding and inoculation*.

Mr. Meigs said that Mr. Pell, of Ulster county, made a statement at the Repository, relative to his experimental farming, from which it appeared that he had found benefit from the use of oyster-shell lime—using 300 bushels per acre. That in addition he had employed 52 bushels of charcoal per acre. That on this charcoal dressing he obtained last summer at the rate of *seventy-eight bushels and twenty-four quarts* of wheat per acre. That he had cut wheat two or three weeks sooner than his neighbors; when the root of the straw began to turn brown, and when by the pressure of the finger and thumb on the grain, its milk would fly out. That this wheat weighed 64 pounds per bushel. That he sold it for seed at one dollar per bushel, when ordinary wheat was 87 cents. That he cut clover and housed it on the same day—sprinkling about a bushel of salt over every load. That this clover retained its green color, and was preferred by cattle to that saved in the old way. That he had 20,000 apple-trees in full bearing. That in dry weather he had applied lime freely at the roots—found that this preserved the verdure and growth, when the neighborhood was much injured by drought. That he dipped a sponge in ammonia, and applied it to the worm-nests on his trees, which banished them completely. That he has sent to market *four thousand* barrels of apples, many of which go to London, and there sell for \$9 per barrel. That he employed a man from Vermont to engraft 10,000 apple-trees for \$150. That this man brought a company of men of whom two sawed off the proper limbs, two more made the incisions (two of them) in the bark, two more inserted the grafts, two more applied a compost of wax, tallow, and rosin. That out of the 20,000 grafts few failed.

Col. Edward Clark stated that charcoal suffered no diminution in its use for vegetation.

Dr. Milhau stated that it takes and retains the ammonia.

The chairman remarked that 52 bushels of charcoal would nearly sprinkle an acre.

John D. Ward stated that charcoal-pits give fertility for 50 years. That such spots are called *coal-bottoms*, and are remarkable for vigorous vegetation.

Mr. Townsend said that the *effect was due to the ashes!* He had often noticed it—that a spot where pure charcoal was, received no fertilization. It was the *alkali* merely that did it.

Mr. Carter said that good fruit ought to be introduced among all farmers; that some time ago, some person who was about migrating to the new lands bought 400 trees at Newark—natural fruit-trees—took them to New York in September, set them in a garden, where they began to vegetate; took them up for the winter, and put them in a cellar in earth—took them by a stove in winter, and grafted them—sent them to the new lands in the spring. Mr. Carter saw them this summer; they were the finest pippins in that country.

Mr. Meigs made some remarks on carbon—that it is charcoal; all vegetables burned give it; it is the essential principle of vegetable life; that the experiments of Sir Isaac Newton on the refraction of light caused him to place diamond, amber, oil,

and charcoal, as all purely carbon—same as vegetable matter; that Guyton Morveau made steel by using *diamond dust on iron*; that Davy found that the fertilizing soil lost no weight by sustaining vegetation; that a hundred pounds of soil would grow a plant from one ounce to a hundred pounds, and lose nothing of weight.

Mr. Wakeman presented Bommer's Treatise on Manure. Committee appointed to examine it.

Mr. Meigs read the report of committee on Dr. Underhill's vineyard at Croton Point, consisting of twenty acres of Isabella and Catawba grapes, bearing as much fruit as the Doctor pleases to allow the vines to maintain, recommending the highest honor of the Institute to be given to that meritorious citizen. His farm contains, moreover, 1,700 apple-trees, 2,700 peach-trees, and some of the very finest quinces ever seen by the committee; his apples sell readily here at \$5 a barrel, so fine are they.

Mr. Bowen presented several of the high-cranberry trees from Lake Umbagog, in the state of Maine. They are beautiful and abundant bearers; grow in marshy grounds.

Mr. Browne presented a memorial to Congress relative to American timber. Read and referred to a committee.

Col. Clark stated that old fruit-trees can be much renovated by proper care; suggested some of the proper means.

Several other matters were discussed, when the Club adjourned at 3 o'clock, P. M., to meet at the Repository of the American Institute on Tuesday the 12th of December, at 12 o'clock, M.

#### AGRICULTURAL SHOWS.

**PLANTERS' CLUB OF HANCOCK, GEORGIA.**—The Southern Cultivator comes to us freighted with the details of this show. It was held at Sparta November 3d and 4th. There were a large number of persons present of both sexes, and the quantity of stock on the ground seems rather extraordinary for that section of the country. Fine blood horses as a matter of course; Durhams, Ayrshires, and Patton cattle; South-Down sheep, and Berkshire pigs. In these last, we find Col. Bonner of White Plains made a numerous and superb show; Captain Hardwick of Sparta, also exhibited some very fine specimens. Georgia has taken a high stand in breeding Berkshires, and if we are not careful she will yet go ahead of New York in her improved breed of swine. Captain Hardwick seems to have taken precedence in Durhams and South-Downs; and Messrs. Dickson, Neal, and Lamar, in horses. The ladies came in with a handsome and numerous display of domestic fabrics, manufactured with their own hands. We like to see such things, and there is no fear of the

country, so long as the ladies head its domestic manufactures.

**THE AGRICULTURAL, HORTICULTURAL, AND BOTANICAL SOCIETY** of Jefferson College, held its annual show at Washington, Mississippi, November 1st and 2d. The Concordia Intelligencer contains a full report. Mr. Affleck, of Washington, on the first day delivered an address on the nature and Structure of Plants, with reference to practical Horticulture, which is highly spoken of. Mr. Fletcher made an address on the second day, which was listened to with great interest. The show then commenced, when horses, cattle, sheep, and swine of most of the improved breeds were exhibited in considerable numbers, proving conclusively, that they can live there and do well, if proper attention be paid to them. Dr. Lovelace of Wilkinson, exhibited superior specimens of cotton, approaching in appearance the Sea-Island. This cotton is a hybrid, produced from a cross of the Mexican varieties, and according to Dr. L.'s statement,

1. In its general aspect resembles the common Mexican cotton.
2. It bears as many bolls.
3. The bolls are as large.
4. They open as early.
5. They expand well.
6. The cotton is easily picked from them.
7. Yields as much to the acre.
8. About 80 bolls on an average yields one pound.
9. The lint is easily separated from the seed.
10. It nets from 33 to 36 per cent., which is more than any cotton yields which he has examined.

There was a good display of other things usual upon such occasions, especially of domestic manufactures. Col. Wailes having served the society as President several years, declined a re-election, and was succeeded by William J. Minor, Esq. This society has been the means of accomplishing much good in that part of Mississippi, and we see no falling off in the interest and spirit of its proceedings.

**TO PREVENT CREAM FROTHING WHEN CHURNING IN WINTER.**—Before commencing churning, let the cream be equally warmed to a temperature of 55 degrees, and gradually approach during the churning process to 65 or 70 degrees. Cream will rarely froth at this temperature, and it also facilitates the coming of the butter. The cream may be warmed by standing near the fire, by a can of hot water placed in it and stirred about, or by pouring warm water into the churn. We prefer the first or second method. A small quantity of salt thrown into the cream will also prevent its frothing.

#### SALT DESTRUCTIVE TO INSECTS ON PLUM-TREES.

A correspondent of the Boston Cultivator, recommends 2 quarts of salt to be put around each plum



tree 6 inches from the trunk every year as soon as the ground is frozen. "Put on in the winter, it works into the ground by degrees, and becomes diffused through the soil before vegetation commences, and it is then taken up in a suitable portion by the small roots, and is circulated with the sap through the tree, leaves, and fruit, and insects are so averse to salt, that they will not take it if they can get fresh food.

"By this means I have been able to obtain good crops of plums while others have lost both fruit and trees by insects. As a proof of the utility of salt applied to plum-trees, Mr. Pond, who cultivates land once overflowed with salt water, never fails to obtain good crops of plums, and Mr. Jones, who has a plum orchard and an asparagus bed on the same ground, which he covers with salt mud, never fails to get a good crop, and his trees and fruit are perfectly free from disease.

"I have known several persons to try this who had good crops by the use of salt, while the fruit of the adjoining gardens all fell off."

**LECTURES ON AGRICULTURAL CHEMISTRY.**—It will be seen by the advertisement of Dr. Gardener, that our citizens are now to be favored with a series of lectures on that science, which is at length beginning to attract more attention both in Europe and America than any other—we mean the science of Agriculture.

Dr. Gardener, we are informed, has been several years a practical farmer, was a student under that celebrated botanist Professor Lindley, and received his chemical information from Brande and Turner. He lectured for some time on Chemistry and Botany, at one of the oldest Colleges in Virginia, and is now engaged to deliver a series of popular lectures at the Rutgers Institute of this city.

His first lecture will be delivered at the University on the 27th inst., at 7½ o'clock, P. M., and we earnestly hope that all who are seeking to improve themselves in the principles of agriculture will attend. We find several of our most respected citizens already subscribers to this course.

**OUR JANUARY NO., THE FIRST OF VOLUME THIRD,** will be the richest paper ever yet issued from an Agricultural press. It is already nearly printed, and only waits the arrival of the steampacket with Foreign News, when it will be promptly issued. The correspondence is uncommonly able and varied, and very fairly represents the North, East, South, and West, of this great country. We really feel under a load of obligations to our friends who have come forward so promptly in our behalf, and we shall take great satisfaction in requiting their favors in any way in our power. Our paper is meeting with unexampled success, and in its circulation, as it has in all other matters, it will henceforth take precedence. Payments for the Third Volume are already coming in rapidly. This is right. Recollect to remit through the Post-Masters as the law allows.

## LIST OF PREMIUMS

*Of the American Institute.—Concluded.*

## AGRICULTURAL PRODUCTS.

George Chesterman, Harlem, N. Y., for forty ears of fine white Indian corn—Two volumes American Agriculturist.

S. Van Valkenburg, Harlem, N. Y., for forty ears of fine yellow corn—Two volumes Transactions State Agricultural Society.

Nathan Coleman, Poughkeepsie, N. Y., for a bushel of superior white flint wheat, weight 64 pounds—Silver medal.

R. L. Pell, Pelham, Ulster Co., N. Y., for a bushel of extra fine rye, weight 60 pounds—Four volumes of the Cultivator.

Mrs. S. Campbell, Springfield, N. J., for a bushel of fine oats, weight 43 pounds—Planter's Guide.

James Depeyster, Flatbush, L. I., for superior Egyptian corn—American Agriculturist.

Tunis Bell, Piermont, N. Y., for fine specimens of white Indian corn—Farmer's Mine.

J. Q. Underhill, Secaucus, N. J., for fine specimens of mammoth Indian corn—Farmer's Mine.

Hiram Smith, Wheatland, N. Y., N. H. Wolf, 17 South street, N. Y., agent, for the best wheat-flour—Silver medal.

Hecker & Brothers, 245 Cherry-street, N. Y., (Croton mills,) for the second best wheat-flour—Diploma.

Hecker & Brothers, 245 Cherry street, N. Y., (Croton mills,) for superior unbolted, or Graham flour—Diploma.

W. H. Imlay & Co., Hartford, Conn., for superior rye-flour—Silver medal.

## SILKS—RAW AND MANUFACTURED.

W. J. Cantelo, Weehawken, N. J., for the best cocoons and raw silks—Gold Medal.

Albert P. Heartt, Troy, N. Y., for the second-best cocoons—Diploma.

Lucius Carey, Moreau, Saratoga Co., N. Y., for the second-best raw silk—Silver Medal.

Northampton Association of Education and Industry, for specimens of raw silk—Diploma.

Luke A. White, 15 Whitehall street, N. Y., for a specimen of raw silk—Diploma.

F. Trowbridge, Flushing, N. Y., for a specimen of raw silk—Diploma.

Ephraim Montague, Belchertown, Mass., for a specimen of raw silk—Diploma.

W. J. Cantelo, Weehawken, N. J., for winding-racks for cocoons, a very useful article—Diploma.

William Haydon, 9th Avenue, and 27th street, N. Y., for superior silk-dyeing—Diploma.

New England Silk Co., Hartford, Conn., for the best black and colored sewing-silk—Silver medal.

Northampton Association of Education and Industry, for the second-best sewing-silk—Diploma.

Haskell & Hayden, Windsor, Conn., for superior colored spool sewing-silk, (gold medal having been before awarded,)—Diploma.

John W. Gill, Mount Pleasant, Ohio, for the greatest variety of manufactured silk goods—Gold medal.

Timothy Smith, Amherst, Mass., for a piece of plain drab silk—Silver medal.

Murray & Ryle, Paterson, N. J., for ladies' and gent's cravats, and twilled silk handkerchiefs—Gold medal.

John Denmead, 137 William-street, N. Y., for silk gimps, silk-wire, and coat-binding—Silver medal.

Mrs. Mary Beach, Newark, N. J., for a pair of white silk hose—Diploma.

## ORIGINAL CORRESPONDENCE.

For the American Agriculturist.

## OLD AGRICULTURAL WRITERS.

"Samuel Hartlib, his LEGACY OF HUSBANDRY, wherein are bequeathed to the Commonwealth of England, not only Brabant and Flanders, but also many more Outlandish and Domestick Experiments and Secrets, (of Gabriel Platts and others,) never heretofore divulged, in reference to Universal Husbandry. Psal. 144, 5, 'That our garners may be full,' &c. London, 1655."

We had the pleasure of introducing to the readers of the first volume of the American Agriculturist, one of the most approved and standard authors of the early times of English written husbandry, Barnabe Googe, published in black letter, in 1578. We here have, as the subject of our present quotation and brief remarks, a writer of nearly 80 years later date, and it is curious to note the modernizing effect of this comparatively short time, in the more rational and practical ideas embodied in systematic husbandry. The former partakes of all the marvelousness and extravagance of the middle ages, while the last, with some few exceptions, has shaken off to a great extent, the wizard veil, that obscured and distorted the common operations of nature. Comparatively little progress had been made in unlocking her mystic stores, and revealing to the gaze of mankind, what has been exhibited to such an unlooked-for and amazing extent within the last half century, by the almost inspired efforts of scientific explorers. Yet one great point had been gained, in the rejection of those hobgoblin and spectral hallucinations, that blurred and blotted to their mental vision, almost all the secret or misunderstood laws that governed inorganic matter, and the vegetable and animal creation. Having taken this first step in the highway to wisdom, the unlearning their errors, their progress was thereafter certain, though slow, and the result we witness at the present day, is but the natural conclusion of what was to have been anticipated from this first indispensable movement. It is the accelerated momentum, the focal intensity of rays concentrated from every scientific luminary, that has poured its benignant beams on a benighted world.

The observations respecting soils, modes of tillage, crops, implements, domestic animals, &c., &c., are generally correct and sound, as far as they go, and might with great propriety be introduced to modern farmers, as worthy their perusal and attention. As the limits of the American Agriculturist will not permit extensive reference, or large quotations from the work, our notice of it will be necessarily brief.

One of the first objects of our author's attention, is the introduction into his own country, of valuable seeds, and modes of tillage, from abroad, as is purported in the title; he having travelled extensively, and noted accurately the husbandry of other countries. This is an object every way worthy of the attention of our own countrymen at the present time. His suggestions for the improvement of implements, we are happy to see our ingenious

and enterprising mechanics of the present day are acting on with great success. He says in reference to this subject: "I wonder that so many excellent mechanics who have beaten their brains about the *perpetuall motion*, [not quite done with in our generation,] and other curiosities, that they may find the best way to ease all motions, should never so much as honor the plough (which is the most necessary instrument in the world) by their labors and studies. It would be an extraordinary benefit to the country, if that 1 or 2 horses could plough and draw as much as 4 or 6, &c. Lately in Holland a waggon was framed which with ordinary sails, carried 30 people 60 English miles in 4 hours. I know some excellent scholars who promise much by the means of horizontal sails, viz., to have 3 or 4 ploughs together, which shall also both sow and harrow without horses or oxen." As this last feat has not been performed, we may charitably conclude the scholars were mistaken in the modest estimate of their abilities. Yet the power of *steam*, then un conjectured, has done vastly more for labor, than the power of wind, at that time so largely relied on.

Even at so early an age, sowing wheat, barley, &c., in drills, was strongly urged, and for the same reasons that induce its practice at the present time. As to "the causes of smuttiness," our author says most rationally, "I desire not to fetch causes afar off, and to tell you of the sad conjunction of Mars and Saturn, (for I think *quæ suprà nos* belong not to us,) when as we have enough at home; which are various," &c. Brine and lime were the remedies then adopted for it. Sowing early was recommended to avoid mildew. It is a good practice in the nineteenth century.

The English were later in the general introduction of gardening than is usually supposed. Our author says, "About 50 years ago, about which time *ingenuities* first began to flourish in England, the art of gardening began to creep into England, into Sandwich, and Surrey, Fulham, and other places." Much pains were taken to introduce the cultivation of the grape, and the manufacture of wine in England, ever since the conquest of the island by the Romans, and it is insisted on strongly by Hartlib, and for proof of the capabilities of the soil and climate for its production, he cites several notable instances. But experience has taught the islanders, that although partial success has crowned extraordinary efforts for this object, they can produce their wine much more successfully, by their crops of wheat and turneps, and in their work-shops of Manchester and Sheffield, and their *ocean husbandry*.

Plowing in manure is strongly urged, and very properly too, and frequent plowing insisted on. For the last rule, this reason is given, "that the sun and dew engender a nitrous fatness, which is the cause of fertility. I have seen ordinary dung on dry lands in dry years to do hurt, and it oft causes weeds and trumpery to grow."

Nearly all the modern manures are recommended, and New England is quoted for the good effects of *fishing* the ground. "In April there cometh up a fish to the fresh rivers called an alewife because of its big belly, and is a kind of shade full of bones;



these are caught, and one or two cut in pieces put in a hill when their corn is planted, called Virginia wheat, and it causeth fertility extraordinary for two years, especially the first; for they have had 50 or 60 bushels to the acre, and yet plough not their land, and in the same hills doe plant corn for many years together, and have good crops, besides an abundance of Pompions and French or Kidney Beans."

In Holland, even at that early day, all the urine from every source was carefully saved and applied to the land. "Columella saith, that he is an ill husband that doth not make 10 loads of dung for every great beast in his yard, and as much for every one in his house."

After enumerating 23 methods for enriching soils, he quaintly though ingenuously adds, "Lastly, To conclude, I may adde as a main Deficiency, that though we may by experience find that all the foresaid Materials, and divers others, as oft-tilling, Husbandry, seasons, &c. change of Seed and Land, resting of Lands, fencing, &c. do cause Fertility; yet we are very ignorant of the true causes of Fertility, and know not what Chalk, Ashes, Dung, Marle, Water, Air, Earth, Sun, &c. do contribute: whether something Essential, or accidental; Material, or Immaterial; Corporal, or Spiritual; Principal, or Instrumental; Visible, or Invisible? whether Saline, Sulphureous, or Mercurial; or Watry, Earthy, Fiery, Aereal? or whether all things are nourished by Vapours, Fumes, Atoms, Effluvia? or by Salt, as Urine, Embrionate, or *Non specificate*? or by Ferments, Odours, Acidities? or from a *Chaos*, or inconfused, indigested, and unspecificated lump? or from a *Spermatick*, dampish Vapour, which ascendeth from the Centre of the Earth, or from the Influence of Heaven? or from Water only impregnated, corrupted, or fermented? or wheather the Earth, by reason of the Divine Benediction hath an Infinite, multiplicative Vertue, as Fire, and the Seeds of all things have? or whether the multiplicity of Opinions of learned *Philosophers*, (as *Aristotle*, *Rupesc*, *Sensdivog*, *Norton*, *Helmont*, *Des Cartes*, *Digby*, *White*, *Plat*, *Glauber*,) concerning this subject sheweth the great difficulty of this Question, which they at leisure may peruse. I for my part dare not venture on this vast Ocean in my small Bark, lest I be swallowed up; yet if an opportunity presents, shall venture to give some hints, that some more able Pen may engage in this difficult Question, which strikes at the root of nature and may unlock some of her choicest treasures. The Lord Bacon hath gathered stubble (as he ingeniously and truly affirms) for the bricks of this foundation; but as yet I have not seen so much as a solid foundation; plainly laid by any, on which an ingenious man might venture to raise a noble Fabrick: I acknowledge the burthen too heavy for my shoulders."

The reason for the early neglect of farming in England is broadly enough given. "In the times of Papistry, all in this Island were either Souldiers or Scholars: Scholars by reason of the great honours, priviledges, and profits, (the third part of the Kingdom belonging to them) and Souldiers, because of the many and great Wars with France, Scotland, Ireland, Wales. And in those times

Gentlemen thought it an honour to be carelesse, and to have Houses, Furniture, Diet, Exercises, Apparel, &c. yea all things at home and abroad, Souldier-like: Musick, Pictures, Perfumes, Sawces, (unlesse good stomacks) were counted, perhaps unjustly, too effeminate. In Queen Elizabeth's dayes, Ingenuities, Curiosities, and Good Husbandry, began to take place, and then Salt-Marshes began to be fenced from the Seas; and yet many were neglected, even to our dayes." If we substitute indifference, carelessness, idleness, extravagance, and *speculation* for the "souldiers and scholars" of those days, we shall have the great causes of our own deficiencies at the present time.

It is instructive to note the strenuousness with which *manufacturing* was insisted on as adding to the profit of agriculture. "Formerly we were so unwise as to send our wool to Antwerp, and other places where it was manufactured, *by which means one pound often brought ten unwrought to them*, but we now set our own poor to work and so save the depopulation." Our late tariff is doing more for the profits of agriculture among us now, than all the improvements in agriculture for the last century, by affording a profitable market for its products; whereas, before, it was borne down by the very success of its efforts; the excess of products vastly diminishing its profits.

Our author laments that, "its a great deficiency here in England that we have no more Bees," and adds, "they thrive very much in New England." He recommends not destroying them to get their honey, but "drive them once or twice a year as they do in Italy, where a law was made that none should destroy a swarm of Bees, unless he had just cause, accounting it extream injustice and cruelty to take away both goods and lives of such good and faithfull servants." We here see that modern hives are but the revamping of old ones.

Raising silk-worms is strongly urged. Hartlib says: "In Virginia the silk-worms are found wilde amongst the mulberry woods, and might be managed with great profit in those Plantations if hands were not so scarce and dear." Now that they are both plenty and cheap, we trust our southern friends will set about their production in good earnest. Although our author says nothing about the spontaneous production of swarms from a *dead steere*, a process so elaborately related by Googe for the benefit of such as have more beef than bees, yet he sagely conjectures, that "this silk-worm of Virginia is produced by the corruption of the mulberry tree, as Cochinneal, from *Ficus Indica*," the Indian fig-tree. This superstition of spontaneous insect production, is not dead yet, for we found last season, the head-man of one of our most intelligent North river agriculturists, a worthy Welshman, attributing the worm in wheat to the decomposition of the berry consequent on blight, and we could not reason him out of it.

Salt-water for sheep is recommended as a cure for rot, scab, and ticks, and "fastening the wool." "Currying and dressing horses is half as good as their meat." Brimstone and elecampane roots are good physic for them. "Housing [soiling,] cattle

winter and summer," is suggested, and clean pens for hogs strongly insisted on. "White bread chewed in my own mouth, I have found the best poultesse in the world for swelling, or ache of any kind."

Farmers' clubs, and agricultural schools, are hinted at in the following: "Gentlemen and Farmers do not meet and communicate secrets in this kind, but keep what they have experimented themselves, or known from others; as *Sybil's* leaves: I mean as rare secrets, not to be communicated. I hope that we shall see a more communicative spirit amongst us ere long. And Sir, I cannot but desire you, if you have any things more in your hands of Gabriel Platts, or any mens else, that you would with speed publish them.

"We want a place to the which men may resort for to find such ingenious men, as may be serviceable for their ends and purposes; and also know where to find such seeds and plants as they desire, as the great Clove-grass, Saint Foin, La Lucern, &c.

"Men do usually cover great quantities of land, yet cannot manage a little well. There were amongst the ancient Romans some appointed to see that men did till their lands as they should do; and if they did not, to punish them as enemies to the Publique; perhaps such a law might not be amiss with us: for without question the Publique suffereth much, by private mens negligences. A little Farm well tilled is to be preferred: for then we should not see so much waste land, but more industry, greater crops, and more people imployed, then are at this present, to the great profit of the Commonwealth. I know a Gentleman, who yearly letting more and more of that land he used to keep in his hands, yet confesseth his Barns are fuller, because he more diligently manageth what remaineth."

"Master Gab. Platts has given a book of Husbandry entitled, *A discovery of infinite treasure hidden since the world's beginning*. The genius of this age is very much bent to advance husbandry, and gentlemen study *professedly* these improvements." We trust our own age will not be behindhand in the same zeal that characterized the seventeenth century. Our author gives us a sly puff of his own work in a complimentary letter from Dr. Arnold Beatis, as follows: "for which having perused instantly, *à capite ad calcem*, I give you most hearty thanks, as I find it a most excellent piece, both for the improvement of husbandry, and of the other commodities of the country;" with which most hearty commendation, we must conclude our brief notice of Samuel Hartlib.

R. L. A.

For the American Agriculturist.

#### CULTURE OF CORN.

Rahway, N. J., Nov. 1, 1843.

THIS crop is one of the most important, that the farmer raises; it enters largely into the subsistence of his family, and any improvement in its culture whereby he can add to the quantity raised without additional expense, is adding so much to his wealth, and that of the country. There is a right

way to do everything, and the right way is always the best and most profitable; at the same time, the same routine will not answer in all cases, but must be modified by circumstances, and it is for the intelligent, practical man to judge of these. It is impossible for farmers to travel much, and by personal observation gain that information they need. This, undoubtedly, would be best; however, it is out of the question with the great majority of the farmers—they can neither spare the time nor money for such a purpose. But they can well afford to pay a dollar or two for an agricultural journal, and on a long winter's evening, enjoy themselves by a good fire, in procuring that information which may answer instead of travelling, and be of much value, in the course of their labors.

This part of New Jersey is naturally a good soil, inclined to clay, and is the right kind for hay and grass. It has the advantage of being near the New York market, both by railroad and water carriage, and several spirited farmers are now improving its agriculture, which has heretofore been much neglected. The article most depended upon for sale is hay. Wheat is now raised in sufficient quantities to supply the farmers with their own flour. Thirty years since nothing but rye would grow, and an acre of wheat was as much as any farmer would venture to sow. But to return from my digression. My method of raising corn is as follows:—

In the spring, to plough up the sod ground with one of Ruggles, Nourse, & Mason's plows, to the depth of eight inches. My team consists of a pair of mules, and a yoke of oxen, and I take great pains to have the work done well. After the ground is ploughed, I take a heavy, *sharp* harrow, and go over it lengthwise with the furrow twice; then diagonally; then cross the furrow at right-angles, lapping the harrow one third of the width at least. By this time the ground is well pulverized, and is fit to receive the seed. This year I furrowed it four feet apart, putting a good shovel-full of compost manure into a hill. The after-culture consists in going through it four times with the cultivator; twice between each row at a time, I consider of most importance. I differ from many of my neighbors in my cultivation, that is, I am careful not to turn up my sod to the surface the first year. The sod by rotting under the soil, enriches the land at the cheapest possible rate, and the succeeding crops feel the benefit of this mode of culture. I plant none but yellow corn, with long ears of 8 to 10 rows, and small cobs. The fodder is good, and it never has failed to ripen, although my seed was not put into the ground until the 28th of May this year.

COMPOST MANURE for my corn, I make of swamp-earth, barn-yard manure, ashes, coal-dirt, and such other materials, as I can scrape together, through the summer and fall, laying it up in heaps and pitching the whole over once or twice after being pretty well decomposed.

THE CULTIVATOR I use, is in shape like the common kind. The teeth are somewhat different; they are made out of inch-square iron, faced with steel, nine inches long below the wood. The two hindmost ones are flat, to prevent the dirt cover-



ing the young corn, or roots when it is run through the rows. After the harrowing my ground receives at the commencement, I find this instrument quite sufficient to keep the ground in first rate order.

Under this mode of management, my crops have averaged about 70 bushels of shelled corn per acre. I am still undecided as to the best distance to plant corn; or whether hills are better than drills.  
C. BAKER.

A MEXICAN COTTAGE.—(FIG. 62.)



As your periodical is taking a wider range than is usual with agricultural publications, I herewith send you the cut of a Mexican Cottage; the style is common in the Tierra Caliente, and is adopted alike by the lower classes and Indians. It is taken from a work just published by Mr. Winchester, called *Mexico As It Was And As It Is*, by Brantz Mayer, Esq., abounding, among other things, with some notices of Mexican agriculture, products, and stock. I may speak of these more particularly hereafter. W. E. L.

*For the American Agriculturist.*

## COTTON CROP OF 1843.

*Log Hall, Miss., November 19, 1843.*

I HAVE long since made up my opinion that the cotton crop will not exceed 1,800,000 bales; and I am strengthened in this, from recent information, by letters, estimates I have seen, and conversations with planters, merchants who have travelled, and from facts in my own neighborhood. A writer in the *Charleston (S. C.) Courier*, of Oct. 28th, gives the dates of the killing frosts for the five past years, and shows when it occurred before November, that the crops fell short of the above estimate. The killing frost of this year was four days earlier than for the five preceding years, which, with the crop being nearly one month more backward than last year, must make its injury very far greater. The frost on the 18th of October, destroyed all bolls where the cotton was not matured, north of 33° in Georgia and South Carolina, thereby rendering the crop short 200,000 bales, as given me in a private letter, from a large planter and a very intelligent gentleman, under the date of Nov. 8th. There is another count in the matter, the crop has opened later than usual, more bad weather than I ever saw, thereby throwing the picking season far behind our usual time. I can point out good and attentive planters, that have not one half gathered now that they had last year; others; that the crop is much lighter; and in all this region no man has gathered near his former average work.

M. W. PHILIPS.

## AGRICULTURAL IMPLEMENTS FOR THE SOUTH.

WE trust that the writer of the following letter will excuse the use we make of it, as it is a sample of many we are continually receiving, and our object in publishing it, is for the good of the south. We know that the south is in want of improved agricultural implements, suitable for their peculiar crops, and system of cultivation, and that a finer field does not exist for the genius of some of our northern mechanics to display itself than that region, and we are confident that if a few of them would go out there, and study the necessities of the planters, that they could not but do well in manufacturing agricultural implements for them. The plows of which Mr. Potts speaks, would not suit, we think, exactly, and we shall forward some drawings of our own to him in a few days, for criticism. We are of opinion that a satisfactory implement may be made for \$10, not to exceed 55 or 60 lbs. in weight, and which will completely clean the space between the rows of cotton and sugar, in passing through them up on one side and down the other a single time each way.

*Parish of Iberville, Nov. 22d, 1843.*

In No. IX. of your paper, page 257, you enumerate, among the agricultural implements exhibited at the 16th annual show of the American Institute, "Three-share plows turning three light

furrows at a time:" also in the report of the committee on plows, page 282, 2d column, "The committee recommend the awarding of a diploma to Thomas Wiard of Avon, for his gang of plows." I presume the last-mentioned must be somewhat similar in its object and effects to that first-mentioned.

An implement that will turn two or three light furrows at a time, say  $1\frac{1}{2}$  or 2 inches deep, and turn the grass over and under, is a long-sought desideratum in the culture of all our crops, cane, cotton, and corn. It happens more or less every year, that a continuation of rains covers the whole face of the earth with grass, which must be killed in as short a time as possible, within a week after the ground is fit to work, or the grass will get so far ahead as to materially affect the crop. We have tried cultivators—have had them of all possible patterns, &c., and they, from the nature of our soil, have proved unavailing. We have to depend on the plow, and where it has to run five or six times in the row, you may suppose it is a slow business. A *plow*, such as I suppose either of the above to be; or more properly speaking, a series of plows, which can be so arranged as to travel over the whole surface of the ground, going up once and down once, and destroying the grass at the same time, is the thing we want. If such an implement had been in use this last season, it would have made a great difference in the crop. In one instance—that of a neighbor—there would have been a difference of 100 hogsheads of sugar, in a crop of 250 expected. Would it be asking too much to send me drawings of the implement, or have drawings made for the Agriculturist?

JNO. C. POTTS.

For the American Agriculturist.

#### FERTILITY OF SEA-MUD.

THERE are immense deposits of sea-mud in salt water bays, creeks, estuaries, beaches, &c., which I believe have been little referred to as of any value to the agriculturist. There is every reason to suppose, *a priori*, that this mud is one of the best manures, as well as the most durable of all that are at present known. I hope none of your readers will be startled at this bold assertion, until they have read the reasons I shall present, to prove that my assertion is not wholly unfounded.

Sea-mud, as deposited from oceanic water, must contain sea-salt, shell-lime, fish-slime, and earthy matter washed from the surrounding shores and rocks, as well as many other ingredients; all of which are found to be valuable fertilizers. We shall see presently its value where fairly tested. Providence never works in vain, and it only requires man to understand the designs, and apply them judiciously, to produce highly beneficial results.

I would recommend such deposits to be collected by our farmers whose land lies convenient for the purpose, to put it into heaps and mix with it air-slacked lime and fine charcoal. By this mixture the salt will be partially decomposed, and a portion of the soda of the salt will be liberated. Any fish-slime, or other animal deposit, will be

decomposed, and its ammonia liberated, which will be taken up by the charcoal, and firmly held, until the vegetation shall absorb and appropriate it. The lime will also decompose any vegetable matter deposited in the mud, and reduce it to a fertilizing mold. I recommend air-slacked lime, not that it is better than the unslacked, but merely because it can be obtained at half the cost of the other.

I have intended for some time past to throw out a suggestion relative to a further beneficial effect of lime, soda, or potash in soils, independent of their immediate use as decomposers, or as food of plants. When a soil is sufficiently rich in these alkalies and alkaline earth, they will attract nitrogen from the atmosphere and form nitrates, they will also attract carbonic gas and form carbonates. Here, then, we have nearly the whole elementary portion of all vegetation; carbon and oxygen from the carbonic gas, and nitrogen from the nitrates.

The most striking instance of the great fertilizing power of beach-mud I can give you, is the Romney marshes, in the county of Kent, England. Those marshes constitute a tract of about fifty thousand acres, made gradually by oceanic deposition. Many years since, a sea-wall was built to keep the ocean from overflowing, and the ground brought into cultivation. The wall was first made nearly perpendicular, but the sea washed it so much that they altered it, and gave it a slope inward; it still washed, they then got brush-wood in faggots, and drove spiles through the brush; the sea filled the brush-wood with shingle, and a permanent defence was made against further encroachment. The wall was made from Dymchurch to the grand redoubt, a distance of nearly three miles, and is about thirty feet high. The wall was built of clay in the first place. All the ditches ended at one place, where flood-gates were erected, to open at low tide when the ditches were too full, that the surplus water might run out, and when the tide flowed in, it kept the gates close by the outward pressure. The water in the ditches is fresh, and is never permitted to approach nearer than about four feet of the surface. This marsh has for a long time been the most productive land in Great Britain, or probably in the world. Immense crops of wheat have been taken from portions of it for seven years in succession, without any diminution of the product, the straw rising to the height of seven or eight feet. Highly productive crops of mustard-seed is raised on it. As meadow-land for mowing, or for feeding of stock, it may be considered unequalled. It is truly gratifying to an agriculturist to stand on Lympne castle, built on a hill near the marsh, and view the whole range full of stock feeding; particularly the immense flocks of sheep, which look in the distance like so many stones dotting the marsh. The annual rent of this land, some years since, was twenty dollars (£4 10s.) per acre, and farmers in the neighborhood were always eager to give that rental for portions of it near their homestead. The soil of this marsh, among other oceanic depositions, contains a large quantity of marine shell.

WILLIAM PARTRIDGE.



*For the American Agriculturist.*

## MUCK AS MANURE.

*New York, December 1, 1843.*

DURING the past year, I have used muck as a manure upon my farm with the most satisfactory results. It has not only entirely changed the nature of the soil, but also abundantly repaid me for all the expense and trouble I have been put to. The soil upon which it was used is a light, sandy loam, and was almost entirely exhausted of the elements of fertility; so much so, that most of the crops put upon it last year, either failed entirely, or were scarcely worth gathering.

Having drained one of the deposits by clearing out and deepening a ditch, a man with a pair of horses and a scraper scraped out of it and deposited in four heaps about four hundred loads, which I had made into a compost, by using all the stable manure I had on hand in one of the heaps, and also lime, fresh from the kiln, in the others. The man would draw out a quantity of the muck and deposit it about a foot thick, and then cover it with a sprinkling of the lime, then another layer of the muck, and so proceed until he had made the heaps about three or four feet high. This was done in the fall, and was left until the ground was covered with snow, when it was drawn out upon the land on a sleigh, and deposited in heaps over the ground, which we intended cultivating the next year.

When the frost left the muck in the spring, it appeared to have been entirely changed in its qualities. It had lost all its adhesive properties, and was converted into a black, friable powder; it was then spread over the surface, and plowed under. In consequence of its black color, it absorbed the rays of the sun and warmed the soil, so that we had the earliest potatoes in market, and obtained the highest price for them.

I can not tell the exact quantity of compost that was employed, nor the amount of produce per acre; but where I had almost nothing last year, I have now a good lot of sugar beet, mangel-wurzel, and about 500 bushels of potatoes, where it was prophesied I would not have 150 bushels. On the spot where my early potatoes grew, I have one of the finest crops of common turneps I have ever seen; and my orchard, which did not produce a single apple two years ago, that not being the "bearing year," produced me quite a quantity this season. The appearance of the trees is also greatly improved, showing a much more healthy and luxuriant foliage than formerly.

The most gratifying results were manifested upon a spot where I had corn sown broad-cast last year, and which, although it had the whole season to grow in, only reached the height of from one to three feet. This season, after having taken off a crop of rye, cut green, and fed to the cattle before they were turned out to pasture, the whole surface was well covered with the muck, plowed under, and sowed again with corn. It was a pleasing sight to see this crop growing with its broad, green leaves to the usual height of corn, and almost every stalk showing an ear, many of which arrived

to a perfect growth. This has been cut up, and we consider it the most valuable fodder we have for our stock. The expense of getting out this manure was almost nothing compared with the price of other manure. As I before observed, it occupied a man and team nine days to get out the muck. I believe we used 160 bushels of lime; it cost four cents a bushel, besides the time employed in drawing it upon the land during the winter.

I have seen a very poor sandy piece of land where muck was used several years since, and it shows to this day; and I am certain that which I have used has scarcely begun to produce its most valuable effects as yet; for this substance is almost entirely made up of the elements of plants, but in such a condition, that it requires time for those chemical changes to take place, which fit them for being taken up by the roots, and assimilated. I find the muck has greatly changed the appearance of the land on which it was spread. Previously, it had a yellow, poor look; now the soil has grown dark in its color, and appears as much richer, as it really is, since the application of the muck.

HENRY A. FIELD.

We were highly gratified upon receiving the letter below, and trust that others will follow Mr. Stuart's example, till we get a sufficient number of communications to make up our chapter on ancient fruit-trees. Accompanying his letter, the writer sent us a specimen of the fruit which grew this season on the venerable old tree he describes. It is of the red pearman sort, and a fair specimen of its kind. As antiquarian as we are in our disposition, we look upon this apple with great satisfaction, and shall keep it as long as it can be preserved, to show to such of our friends as take the same interest in these matters as we do.

*For the American Agriculturist.*

## ANCIENT APPLE-TREE.

*Hartford, Conn., November 28, 1843.*

AT the suggestion of a friend, a reader of your paper, I am induced to notice a very ancient apple tree which stands on Charter-Oak Place, in this city. This Place was the old seat of the Wyllys family, one of much distinction in the history of this state, and remained in their possession till about twenty years ago, when it passed by purchase into the hands of Mr. Stephen Bulkley, lately deceased. According to the uniform statement of this family, and that of Mr. Bulkley, to whom it was communicated by the last proprietor of the Wyllys name, from whom he purchased it, the apple-tree in question was brought from England by Mr. George Wyllys, the original settler, some time before his death, which took place in 1645. The tree, therefore, is probably more than two hundred years old. Nearly two thirds of its trunk are now gone. The remainder consists of a side or shell, not more than four inches thick in

any part. The inside of the tree, therefore, has almost entirely disappeared, but the portion left and the bark on it, are still vigorous. So far as can be judged, from its present appearance, the trunk was about twenty inches in diameter. From the top several young and thrifty branches shoot out, giving a present height to the tree of about twenty-five feet. It is of the variety called pearmane. It generally bears more or less, and this year bore about half a bushel. The fruit is very choice. It is often inquired for by visitors to the Charter Oak, who in some way or other have acquired a knowledge of its high antiquity. Besides this there are several other fruit-trees on the place, to which tradition assigns a great age; particularly some pear-trees standing in the avenue leading to the house, and one on the brow of a hill a little northeast of the mansion. I am unable, however, to fix their time of planting with any accuracy.

A chapter on fruit-trees, as you remark in your paper for September, with the circumstances connected with them, would certainly prove curious and interesting. I hope you will be able to furnish the public with such a chapter. Should the facts I have communicated aid you in such a purpose, my object will be answered.

J. W. STUART.

*For the American Agriculturist.*

#### IS WHEAT THE ORIGINAL OF CHESS?

*Virginia, November 24, 1843.*

I return my acknowledgments to R. L. Allen, for the courteous bearing he has shown in his article on chess in your 10th number. He exhibits the spirit of an inquirer after truth; and though I had no idea of provoking, or engaging in a discussion, it is a gratification to meet such an opponent in a fair field. I regret, however, that he should have perceived anything in my communication that indicated the spirit of a controversialist; and still more, that he should have regarded me as transgressing against the canons of good taste. Though my remarks were only intended as a little good-natured raillery, I will endeavor to render myself no farther obnoxious to his criticisms.

It was without due reflection that I mistook R. L. Allen for "Ulmus." The paper had scarcely passed from my hands when I perceived the error; but I freely and cordially transfer to him the encomiums I passed upon Ulmus. May the individuals of the genus continue to be multiplied.

While Mr. A. offers to read every argument going to prove the inconvertibility of wheat into chess, if presented to him in a condensed form; and while, too, he appeals to nature in behalf of his views; he not only takes no notice of the arguments, founded on the laws of nature, which I had advanced, but regards them as irrelevant. It seems to my comprehension that he has thus restricted me within very narrow limits. I have no argument to offer other than that which is founded on nature's operations. We daily perceive that all organized beings are governed by immutable laws, one of which is, that like shall produce its

like,—every seed and every animal after its kind. If a law of nature were found to fail in a single instance, everything would become unsettled, and liable thenceforth to be thrown into confusion. There could be no longer any truth in science, nor any uniformity of natural results. If wheat, for instance, which belongs to a tribe of plants producing a spike, or head, may by any process be converted into chess, which belongs to a very different tribe, bearing a panicle, it follows of course, that every other vegetable and every animal, may, under certain conditions, be converted into something equally different and distinct from its parent. If the juices which are elaborated by the leaves of wheat can go to the formation of chess, the pabulum of the apple may with the same certainty be directed to the development of the peach.

But in no instances have these changes ever been observed, or even asserted to take place, except in the solitary case of chess. Does not Mr. A. then perceive, that in contending for this change, he offers extreme violence to nature? And how can he, as a man of observation and science, rely upon the testimony of any man—even upon his own, I was going to say—and not distrust it, when it goes directly to nullify a law of nature? Should he not rather conclude that his witnesses, however credible, were yet mistaken,—and that, instead of making patient and laborious investigation, they had been satisfied to draw inferences and jump to conclusions?

With these general remarks, which I trust Mr. Allen will not consider foreign to the subject in dispute, I will proceed, according to his invitation, to examine the facts he has submitted—premising, however, that similar cases have been frequently reported heretofore. Mr. Allen's facts are briefly these: (See second November No., page 300, second column, first paragraph on to the end of the article.)

In the careful statement which Mr. A. has given of the first three facts, there is still a most important omission, which deprives them of all claim to serious consideration. Before the result was stated, it should have been shown that there was no chess in the seed that was cast on the ground—for Mr. A. fully admits that chess will grow from its own seed. Every farmer knows that chess is a more hardy plant than wheat—that it will grow upon uncultivated land, and even by the way-side. Indeed, the above facts prove that it will flourish where wheat will not grow at all. But where the soil is fertile and properly prepared, the wheat-plant is so much more luxuriant, that it outgrows the chess, and prevents it from developing itself to any great extent. There appears then, to be no necessity at all, in these instances, to infer that the wheat had turned to chess, nor indeed anything to render the inference even probable; for the facts amount, at best, to nothing more than inferences from premises in which all the necessary conditions to a certain result are not alleged to exist. There is probably not one farmer in a hundred, who thoroughly purges his seed-wheat from all extraneous matter.

The 3d fact, which is adduced to prove that *oats* also change to chess, may be regarded as being,



what I believe the lawyers term, *a swift witness*. It is a well-established principle, that one who proves too much, proves nothing at all. It is enough to show that wheat turns to chess; but to make two distinct and very dissimilar plants assume the same ultimate shape, is calculated to throw additional doubt on the whole theory. Does not the introduction of this third fact clearly prove, if it proves anything, that there was chess sown with the seed in every case?

But Mr. A. cites cases to show that wheat and chess have both originated from the same seed; and even that the *same stem* has produced one branch of wheat and another of chess. He was assured of these facts by Mr. Wright, who received them from a third person. In the one case, the numerous fibrous roots might very readily have become so matted and interwoven, as to render it impossible to separate them; and therefore this fact can not be regarded as by any means conclusive. The other case, if it ever existed in reality, would be much more to the point. But as it amounts only to *hearsay* evidence, as it does not appear that the specimen was submitted to the inspection of others—and as it invests the same subject with a double character, I trust Mr. A. will not deem me unreasonably skeptical, if I withhold my belief in its existence, and class it with other marvellous accounts which have been published. If I am totally incredulous, it is not from any want of confidence in the veracity of Mr. A., or his informant, neither of whom saw the plant.

Such, then, is the testimony on which Mr. Allen relies, to establish the convertibility of one plant to another. It is all, with a single exception, indirect and circumstantial. In the administration of human laws, it could not be entitled to much weight—nor indeed to any, unless the witness testified of his own knowledge: how little, then, can be claimed for it, when it is cited to abrogate a law of nature.

It is a difficult matter to prove a negative, yet I think evidence may be adduced of a stronger character *against* the doctrine of change, than Mr. A. has quoted to sustain it. I will describe one experiment, a detail of which may be found at length in the *Farmers' Register*, vol. 1, p. 83. It is so well condensed by David Thomas, in the *Genesee Farmer*, that I will adopt his language. "Thomas Cocke, and Edmund Ruffin, of opposite opinions on the origin of chess, in company with Wm. J. Cocke, who was undecided, selected a clean piece of hard, wet ground, [which had been in corn, but not plowed later than June,] and marked it out in right lines, planting a few small and shrivelled grains of wheat, such as is supposed to turn into chess, at measured distances. A small spot adjoining was strewed broadcast, with similar defective seed. In the spring it was found that only a part of these seeds had germinated, so very imperfect was their quality; and as a farther test, some of the plants were cut down within an inch of the ground. The parties say, 'It was our design in this experiment, to bring into operation every cause to which this change is usually ascribed by different persons, namely: 1. Imperfect seed; 2. Thick sowing; 3. A wet soil; 4. A hard

and unbroken soil; 5. Grazing or mowing.' No transmutation, however, was effected by any or all of these five causes. At harvest it was all wheat, and not a stalk of chess in the whole patch."

I will also briefly state something of my own experience. A number of years ago, my farm was so infested by chess, that it became a serious pest. At length I determined to try the efficacy of clean seed—seed that I *knew* to be clean. I assisted in preparing it with my own hands, and desisted not as long as a grain of chess could be discovered. After pursuing this course for a few years, I had the gratification to perceive that the chess was so completely extirpated, that out of a crop of several hundred bushels of wheat, it would have been difficult to gather a handful of chess. Had Mr. Allen's friends, from whom he derived most of his facts, pursue a similar course, I doubt not they would have experienced similar results. Will Mr. A. regard these cases as exceptions to a general rule? I trust they may rather lead him to review the position he has occupied—for he manifests none of the spirit of a partisan—and that he may be induced to take a comprehensive view of the subject, more becoming his enlightened mind, and his zeal for the cause of truth. Let me beseech him to divest himself of all hasty conclusions and undue bias, and satisfy himself by well-conducted experiments under his own guidance. It may be a work of some labor, but it will either confirm him in his belief or convince him of his error. I shall be willing to abide by the result.

P.

For the *American Agriculturist*

#### NOVEL METHOD OF WORKING BUTTER.

Montpelier, Vt., Nov. 22d, 1843.

A VERY useful and ingenious mode of extracting whey from butter, was recently related to me by a gentleman who had resided many years in the grazing districts of France; and he informed me that a similar apparatus is at present in successful operation, near by here, in this state, although I have not yet seen it. He described it in a manner that could not fail to be understood to any farmer in the Union.

The machine, he represented, as made of wood, in form not much unlike a grindstone, closely fitted into a trough, leaving a space between the stone and bottom of the trough not exceeding a sixteenth of an inch in thickness. The trough is first filled with clean water saturated with salt, one end of which is crowded full of the newly-churned butter. Then the stone is put in motion by means of the crank or otherwise, and the butter is drawn beneath it, and comes out at the other end of the trough in thin sheets, not more than one sixteenth of an inch in thickness, almost entirely freed from the whey, and for common use requires no further salting. The brine thus prepared, has another very important office to perform. It imbibes, by chemical affinity, all the whey with which it comes in contact, and leaves the butter by itself.

Although this apparatus is extremely rude and

simple, it is obvious to an ingenious mechanic, how easily such a machine could be improved upon, and answer a tenfold purpose. J.

*For the American Agriculturist.*

#### FENCES ON THE PRAIRIES.

*Peoria, November 6th, 1843.*

I HAVE now been a resident of this country five years, and in addition to my own experience in farming here, I am backed by the opinions of seven eighths of those who have emigrated to the prairies from England, that fencing upon them is just so much money thrown away. Grazing of cattle, and indeed of all other beasts, may be done throughout the west precisely as sheep are managed on the Downs in the south of England. I need not dwell upon this subject, as you are familiar with it. A few properly-trained cattle-dogs, and an agreement on this subject among the settlers, is all we want. I hope you will call attention to this matter in a complete essay, for I recollect only a paragraph or two that has appeared in your paper yet, and that, if I mistake not, was in your April No., under head of Tour in England. Fencing here, as you well observe, is an "intolerable burden," and what is more, I will add, a perfectly useless one.

CHARLES WENDALL.

*For the American Agriculturist.*

#### ICE-HOUSES.

*Petersburg, Va., December 5th, 1843.*

A GREAT deal has been written on the proper construction of ice-houses, and yet there are very few which preserve ice in the best manner. The chief defect, as far as my observation extends, is *imperfect drainage*. Nothing can compensate for this; all the lining of roof and walls with tan-bark, charcoal, &c., will be attended with little benefit. As the season for cleaning out ice-houses, preparatory to putting away the ice, is at hand, I take the liberty of making a few suggestions on the subject.

The best site for an ice-house is at the summit of a steep declivity, with a northern aspect. If there be trees about it, so much the better. When the pit is excavated, it will not be a difficult matter to cut a drain on a level with the floor, either by ditch or tunnel. When the ground is level, the only drainage that can be effected is by absorption. If the earth be of a loose and porous texture, the absorption may keep pace with the supply of water from the melting ice, but if it be compact and retentive, I know of no remedy, not even by sinking a well of moderate depth. The ice-water and rain-water will destroy the ice long before the hot season is past.

The best ice-house I have ever seen, is one made in as cheap and rude a manner as the plainest farmer could desire. On the side of a hill a pit was dug; a simple pen of logs supported the walls; it was covered with rived pine slabs, and so open as to admit a free circulation of air. During the heat of the day, the sun shines full upon the roof. And withal, the pit is only 12 feet square, by 14

feet deep. It has been in use now for 6 or 7 years, and has never been clear of ice since it was first filled. Two years ago, when the winter was so mild, it was only half filled, with thin ice; and yet there was some remaining at the end of the next season. In the construction of this house, there is nothing to distinguish it, except the perfect draining.

Our ice-houses in Virginia generally become empty by the last of August or first of September; in many cases still earlier. There is no time when it is more desirable to have a full supply than in September; for the weather is then sometimes exceedingly hot, and more sickness prevails than during any other month. Since ice has become an article of necessity almost as much as a luxury, I trust these remarks may not be unproductive of some benefit.

T. S. PLEASANTS.

*For the American Agriculturist.*

#### POUDRETTE AS A MANURE.

*New York, Dec. 2d, 1843.*

D. K. MINOR presents his compliments to those gentlemen who have used poudrette, manufactured by the New York Poudrette Company, in 1841, '42, and '43, and requests *each* to furnish a detailed statement as to the *kind of crop*—the *character of the soil*—the *manner of using it*—and the *results* of its application—especially when used *comparatively* with other manures. The object of this call is to collect *facts* in relation to the use and value of poudrette as a manure, which will be published in a pamphlet, and *one or more* copies sent to those who communicate the results of their experience, that *all* may be able to judge of the best mode of using it, and the *crops* and *soil* to which it is best adapted; and it is hoped therefore, that those who have used it will give *full reports*, at an early period, that others may profit by their experience. Communications may be addressed to D. K. Minor, New York.

#### GOOD AND BAD POINTS OF CATTLE, AND THE FORMATION OF FAT AND MUSCLE.

As this subject is likely to be brought up for discussion at the annual meeting of the State Agricultural Society in January, we beg the attention of all those who take an interest in cattle, to the following article from the London Veterinarian, by Mr. Robert Read, V. S.; and especially that part in which he treats of handling, and combats the opinion recently expressed by Dr. Playfair, that animals which fat the easiest, have the smallest lungs. Dr. P., as we are informed, knows nothing *practically* of breeding, or the anatomy of animals. He took his opinions from the butchers in London, who formed theirs entirely from an examination of *fat* cattle, which must, of necessity, present the lungs in an unnatural state. Cline, like Read, an able veterinary surgeon and writer on the best forms of animals, and who examined hundreds, in different conditions, expressly says that an animal



to fat easily, must possess large lungs. All that we ever examined, we found thus constituted, and we shall adhere to the opinion of these authorities rather than Dr. Playfair's, till we find something more convincing than he has yet adduced to the contrary. Mr. Read fully explains that horses with large lungs fat easily; but it was a great error on the part of Dr. Playfair, to compare the lungs of a horse with those of an ox. Animals of the same species should be compared with each other, and not with those of a different species, as they are constructed for different purposes. We do not breed the horse for his meat. We have no doubt that horses with the largest and best-formed lungs, other things being equal, will be found better feeders than those with small lungs. We again recommend what follows to attention; it should be *studied* rather than *read*.

The skin or external envelope in the *ruminantia herbivora* is an important feature in developing the disposition of cattle to fatten, and is of much import to the farmer and grazier.

A good skin is known by the familiar name of *touch*—that is, the animal should possess a mellow skin, with resiliency moderately thick, yet loose and yielding to the fingers when gently elevated, and resuming its station with an elastic spring, as if there was underneath a tissue of wool impregnated with oil. The resilience of good skin in an animal depends on the organization beneath it, and the presence or absence of cellular or adipose tissue. The existence of this membrane constitutes the good handler—its deficiency the reverse.

The pilary or hairy covering should be thick, not coarse; glossy and soft, with an inclination to yellow, and in proportion as this exists as a quality or constituent, so is the propensity to make fat: on the other hand, a thinness of hair, and coarseness in fibre denotes an unthrifty animal, more especially if conjoined with a dense firm hide or skin, and with short hair. This implies a bad handler, and is a sure indication of being a slow feeder, with a tardy disposition to increase in volume, either of fat or muscle. It is by the feel of the cutaneous tissue that a judgment is formed as to the state of maturity now, and that an opinion be formed of the condition and worth hereafter. The beautiful mossy skin that seems like soft velvet; its peculiar feeling, as if it were stretched over a bed of down when the fingers are applied; and its easy resilience when traction is made use of; these are the best and surest prognostics as to the future worth of the animal.

Physiologically speaking, a mellow skin arises from a free circulation of the vascular system through the meshwork of the cellular or adipose tissue, or those cells that are destined for the reception of fat. These tissues are considered by some alike synonymous anatomically. They are always in a moist state, from the internal cavity of the cell performing the office of exhalation. Want or supply of interstitial deposite makes a bad or good skin.

The adipose and reticular tissues are extremely vascular, more especially that portion in immediate connexion lying under it. A good and kindly handler has a full development of this material well spread over the superficies of the external frame under the skin. The membranous tissue is a bed for the origin of the absorbents, and the adipose tissue is the depository in which the fat is deposited by the exhalents peculiar to it. These membranes participate in the character of the hide. They are more dense and inelastic, and less expansive. They do not admit of being so readily dilated by the interstitial deposite, and consequently are longer in acquiring a mature state in the progress of making fat.

A thick and unyielding hide, not succumbing to the internal deposite in the adipose tissue under the skin, is thus continually reacting by pressure on the absorbents, and in this manner makes the animal slow in accumulating fat on the external parts of the frame. The difference in the feel between the glossy and coarse-haired animals is dependant on the secretion from the cutis. In the thick skin it is more inspissated, and exfoliates in branny scales. In the mellow and glossy skin it is more oleaginous, which may also be accounted for. Its having a greater freedom for the assimilation of nitrogen—one of the compounds of ammonia—a chemical agent that is abundantly given off from the skin, and uniting with the unctuous exudation of the cutis, gives to the skin that peculiar saponaceous feel, so necessary as the index of that organ performing its healthy functions, and may be ranked as a sure symbol of early maturity.

The ears should be of a fair proportion, not over-large, thin in texture, and capable of free and quick motion. A good ear denotes good quality; a coarse ear, thick and large, is generally associated with much coarseness in the animal. A good ear is nearly always found in combination with a prominent and beaming eye, with thin palpebræ or eyelids.

This development of eye is most times in unison with a good and clean horn, tending to a very slight red at the radicals or roots. This indicates also a kindly disposition to early maturity. The happy and beaming eye of the healthy animal shows contentment, a very desirable omen as to the quick growth of the animal; while, on the contrary, a heavy eye, with a want of vivacity, with thick eyelids, and a too visible conjunctiva or white of the eye, is indicative of an unhappy and restless temper, incompatible with a good and profitable feeder. The eye of contentment, of quietude, and of calm expression of countenance, is alone compatible with that temperament so conducive to accumulation of flesh and fat. These qualities, if derived hereditarily, will be maintained throughout the whole evolution of growth: they are also well-known signs of early disposition to maturity. The hereditary principle should always be borne in mind. The old adage of "like will beget like," whether applied to the symmetrical law of external form, of quality, of temper, (either good or bad,) of constitution, of a disposition to make either fat or muscle, or to any other

cause inherently acquired. Therefore the only method to ensure those qualities which are so essential to the welfare of the farmer, is to commence primogenitively with the best and most approved principles that have hitherto been found to ensure a healthy and profitable stock.

I shall now speak of bone, as being the framework on which all the materials of the body are built. It should, when examined in the living animal, have the appearance of being fine and small in structure. It then augurs a good quality and being readily disposed to fatten, although it sometimes betrays too great a delicacy of constitution. A bone may be small from a consolidation of its structural parts, yet be capable of sustaining more weight, superincumbently, than bone of a larger size, and whose size depends only on the cellular expansion, and not on a cylindrical consolidation. A large bone maintains a coarse-bred animal, a dull feeder, with a torpid vascular action, that only tardily irrigates the frame with the living stream. Such animals have a greater disposition to lay on more muscular than fatty substance.

Having concluded my observations on the external structure, relative to the propensity animals have of making fat, I shall now offer a few opinions on the arrangement of the internal organs for that purpose.

The lungs should be large, but not occupying the chest too much posteriorly; the chest capacious and deep anteriorly; these being the organs for preparing the arterial blood that nourishes every part.

I have also remarked from inspection after death of hundreds of animals, that the roots of the lungs do not diminish in size so much as that portion which is in contact with the midriff in the fattening animal: lungs over-large are not more productive of fat than those which are of a moderate size. My solution of this fact is, that if the lungs occupy too much of the chest in the posterior part, there is a limitation to the expansion of the rumen or first stomach, and the animal does not enjoy so much lengthened quietude in rumination, a circumstance very essential to the fattening beast. This substantiates what I have before stated. The chest can not be too deep nor yet too broad in its anterior external conformation; therefore, instead of attributing the full, spreading, wide-ribbed chest, posteriorly, as instrumental to the lungs, the space for the expansion of the stomach must not be overlooked, a large digestive apparatus being required for all large herbivorous animals. The heart is an important organ in the animal frame. It is rarely found over-large in the fat animal. It is the forcing-pump by which the whole of the body is irrigated through the arterial tubes. If symmetrical organization pervades throughout the animal, the chances are that the vascular action will harmonize over every part, and the deposit of fat will equalize over the whole of the body. On the contrary, an animal with disproportionate parts will have a greater disposition to lay on muscle or fat on those parts respectively that have the greatest share of vascular action.

I am now proud to state some indisputable facts. I have many times examined animals by

mediate auscultation, with capacious chests anteriorly, and the lungs duly inflating them. Previous to their being stall-fed, they have, when slaughtered, lungs small posteriorly. It is also certain that if an animal dies well, the lungs will be found disproportionate to what they must have been in the living animal.

I do not agree with the generally-received opinion, nor with Dr. Lyon Playfair, that the lungs must be of necessity small when the animal first begins to fatten; but, as the fattening process goes on, the internal cavity of the chest becomes smaller, the action of the heart weaker, and the lungs diminish in size in a regular gradation, from various causes; first, from limited expansion; secondly, from absorption, and by pressure of the surrounding parts; and, lastly, from quietude never allowing their due inflation, which the act of depasturation affords.

The liver is also found small. This I consider to be from absorption and internal pressure of the surrounding organs. The liver has also a diminished supply of intestinal and mesenteric blood, from the appetite not being so vigorous, and less food being eaten as the animal grows to maturity.

I have known many animals die from accident, that, on inspection after death, have had large lungs and livers. They were in lean condition, but had every good quality for fattening; and I have no doubt would have made prime fat beasts, and whose lungs and livers probably would have been smaller when slaughtered.

I do think that Dr. Lyon Playfair is wrong in the opinion, that small lungs and livers are the best organs for the assimilation of food and fat. I think that the reason why animals become speedily fat in proportion as they approach maturity, is from the arterial action being slow, and the venous circulation impeded from the pressure of the accumulating fat. The arterial exhalents deposite more than the venous circulation can return, or their absorbents take up. Thus the harmony is broken. It is a fact well-known, that very little blood of the venous kind can be taken from the fat animal. From what I have stated, taken collectively and in conjunction with the primeval external conformation of the animal, may be deducted those determinations which tend to either the formation of fat or muscle.

Before concluding these remarks, I beg to offer an opinion respecting small lungs, as stated by Dr. Lyon Playfair, (at a meeting of the Council of the Royal Agricultural Society,) that they are more favorable to the formation of fat. Dr. P. says, horses have large lungs. I well know, and not speculatively, that horses, if fed on meal and potatoes, or turneps, quickly and rapidly make fat. In fact, this is the compost that horse-dealers use to puff up the farmers' cattle, so as to give them a glossy and plump look previous to sale, and the being put to work in this state oftentimes causes their death. On opening them, I have seen them loaded with fat.

Now this is not in accordance with Dr. Playfair's views. My firm conviction is, that animals with small lungs in their growing state will in proportion suffer in their external form.



## FOREIGN AGRICULTURAL NEWS.

By the steampacket Acadia, we have received our European journals up to the 19th November. Among them, we are indebted to Mr. P. L. Simmonds, foreign newspaper agent, in London, for the Belfast Northern Whig, containing the proceedings, at length, of the annual meeting of the Belfast Flax Society; also for two numbers of the Gardener's Chronicle.

**MARKETS.**—*Ashes* were in good demand. *Cotton* advanced on the 13th, from  $\frac{1}{8}$  to  $\frac{1}{4}$ d. per lb.; but on the arrival of the steampacket Hibernia, with more favorable news of the crop, receded to the old prices as per our last dates by the Caledonia, and was slow of sale. *Beef* of last year's packing dull—the new was looked for with interest. *Pork* and *Hams* in request. *Lard* and *Lard-Oil* have advanced with brisk sales. *Cheese*, of the better qualities, brisk. *Tallow* in limited demand, though firm in price. *Linseed-Oil*, fallen a trifle. *Oil-Cake* much inquired after. *Naval Stores* dull with a downward tendency. *Flour* limited transactions. *Rice* but little doing. *Tobacco* steady.

*Money* was rather more in request, and temporary loans had advanced from 2 to 3 per cent. First-rate paper, the money returnable at call, could still be done at the lowest rates.

*American Stocks.*—The transactions in these very limited.

*Cheese.*—Messrs. George Wright & Co., in their circular, say, that American Cheese, to suit the English market, must be firm, free from pasture flavor, rich, and above all things, shipped and arrive in good order. This latter point is only to be gained, by a free circulation of air during the voyage. Fine cheese shipped in conformity to the above, is sure to find immediate sale.

*Hams.*—The same firm say, we hope to be able to place American Hams on the same footing as Westphalia. To effect this, they must be well-cured, sewed in canvass, and shipped loose.

*American Provisions in London.*—A large sale took place on the 15th November, and went off tolerably well. The great complaint about the Beef was, that the breed of animals from which it was made was not as good, nor was it as well fattened as the English.

**MR. COLMAN.**—In answer to the numerous inquiries about Mr. Colman, our last letter from him was dated at London, November 14th. He was still prosecuting his agricultural tour, and writes that his health was good, and every facility afforded him in his inquiries throughout Great Britain. He had gathered a large fund of information, which he was rapidly condensing, and will in due time be given to the public. His address is, at present, to the care of Messrs. Baring, Brothers & Co., London, to whom all letters should be forwarded, prepaid.

**YORKSHIRE GAZETTE.**—*Extraordinary Pig.*—A person of the name of Croft, who resides in Petergate, has now in his possession a gilt pig, one of a litter of fourteen, which has six eyes in the centre of its face, a proboscis of about two inches projecting from the forehead, and a tooth from the mouth, the former resembling an elephant's trunk, and the latter a tusk. The nostrils of another of the same litter, which is still living, are inside the mouth. The former is certainly a most remarkable curiosity.

**PRESTON CHRONICLE.**—*Deterioration of the quality of Cheese, by Bone-dust on Pastures.*—At the meeting of the Preston Agricultural Society, it was stated that the application of bone-dust to the land, had affected the taste of cheese. One of the members present ac-

counted for it thus: In stall-feeding of cattle, which had been much recommended, the milk of cows was equal in quantity, but not in quality, to those allowed to roam at large. How happened this? Cows not only required proper nutriment, but a variety of it, and they required exercise as well. With bone-dust there might have been a luxuriant crop, and the cows enabled to feed abundantly without taking any exercise in search of their food, and, having sooner got a full belly, lay down to rest. One kind of manure produced only one or two, or at most three kinds of grass, but changing the manure produced a variety. If they used not only bone-dust, but guano and gallaxoide, they would have a greater variety of herbs than if they used only bone-dust. This variety of grass induced the cow to walk about to pick up the food that best pleased her, and by so doing took the exercise that nature required.

**LIVERPOOL MERCURY.**—*A Monstrous Cabbage.*—A cabbage of the common kind was last week cut from the garden of Mr. Johnston, at Saunder's Bush, in the parish of Arthuret, of the following enormous dimensions: circumference,  $15\frac{1}{2}$  feet; diameter,  $5\frac{1}{2}$  feet; and weight,  $4\frac{1}{2}$  stones.

We suppose the stones here meant are 14 lbs.; if so, the cabbage weighed 63 lbs.!

**PAISLEY ADVERTISER.**—*Garlic a Preventive against Rats and Mice in Grain-Stacks.*—A farmer in this neighborhood has, for some time past, put garlic in the bottom of his grain stacks, and since he has adopted that plan, has never been troubled with vermin. Before adopting this plan, on taking down a stack of grain, the assistants never killed less than from 15 to 20 rats, and above 100 mice. This is a very simple, cheap, and effective method of preserving grain in stacks.

**NEW FARMER'S JOURNAL.**—*Utility of Geese and Asses to the Farmer.*—It has been long remarked, that cattle of all kinds are never unhealthy where geese are kept in any quantity; and the reason assigned is simply this, that geese consume with complete impunity certain noxious weeds and grasses which taint more or less, according to their abundance, the finest paddocks depastured by horses, bullocks, and sheep. Most farmers are aware of this, and in many places where the beeves appear sickly change is tried, and the soil which the cacklers tread is converted for the time being into a sort of infirmary. The pasturing of two or three asses with sickly cattle has also been found productive of the best effects, from a similar reason.

*Wheat-Stack secured from Vermin.*—Lord Western writes: I enclose you a draught of one of my wheat-stacks, with the specification in detail of its dimensions. Ten thousand sheaves are secured in that stack against all sorts of vermin, upon seven stack-stones and a frame. This I beg to observe, is accomplished by superior skill, and not by great labor, and at an expense only of about 13l. for the stones and frame. I invite the inspection of my stack-yard both here and at Rivenhall, and I think that the advantages of cultivating and encouraging the art of stack-building will be obvious to everybody who sees them.

*Aviary at Windsor.*—Among the fowls in this choice and curious collection are five Cochins China pullets, (five hens and two cocks,) imported direct from Asia. Such is the extraordinary size of these birds, that when full grown they will stand upon the ground and feed from off a table 3 feet in height; their usual weight being from 22 lb. to 24 lb. per couple. Their eggs, the shells of which are of a dark mahogany color, possess a peculiarly delightful flavor, and are high-

ly prized. One of the pullets has laid upward of 50 eggs in less than eight weeks. The cock chickens, although not more than a few months old, now measure in height 23 inches from the claws to the beak, notwithstanding they are but little more than half-grown. Of Java milk-white silver bantams, that extremely rare fowl in England, so difficult even to preserve in this country, there are 12 couples. Until now it has never been considered possible, although numerous attempts have been made, to rear this singular and delicate description of bird in our generally cold and variable climate; Mr. Walters, however, who has the whole superintendence of the aviary, has fortunately succeeded in rearing eight birds out of a hatching of ten. They are now three months old, and perfectly healthy. Five Scotch fowls, peculiar to only some portions of the highlands in the north of Scotland, are among the collection. They are fully feathered down the legs to the very nails of their feet, and in general appearance somewhat resemble the ptarmigan, or red grouse. The cock-bird which is beautifully marked, is a perfect picture. Among the other descriptions of rare birds at the aviary are two hens and a cock of Sir John Sebright's pheasantlike breed, several clear-white bantams, eight real black Spanish birds, and other fowls of a similarly choice and valuable character. The spacious pigeon-house, which rises from out of the centre of the aviary, forming a picturesque object when viewed from the home-park, contains a vast number of pigeons of nearly every known breed, among which may be enumerated pouters, bald-heads, tumblers, Spanish runts, nuns, and carriers. The whole of these birds (not excepting the carrier-pigeons) have been trained to become so exceedingly tame, that upon visiting the aviary they will hover around the head, perch upon the arms, and feed out of the hands of their possessor.

**Rapid Vegetation.**—The *National* states that an extraordinary specimen of rapid vegetation may be seen in one of the hot-houses of the Jardin des Plantes at Paris. An offshoot of bamboo cane has within the last ten months grown ten yards high, which is more than 5 inches each day. It may, in fact, be seen to grow, since its march of ascension is as rapid as the movement of the large hand of a drawing-room clock.

**GARDENER'S CHRONICLE.**—*Enormous Egg.*—An egg was this week laid by a goose at a farm in Quermore, near Lancaster, whose weight was 10 ounces, its circumference longitudinally was  $10\frac{1}{2}$  inches, and it measured  $8\frac{1}{4}$  inches round.

**Large Onions.**—An average sample of 15 onions, which weighed upward of 10 pounds, was grown on a small croft in the fertile village of Longton, near Preston, which had been sown with 5 lbs. of seed from the same ground. It is supposed more than as many tons have been gathered.

**Propagation.**—Perhaps there may be no harm in stating the fact, although it may be known to some of your readers already, that young plants may be propagated by means of birds'-nests. Roses and other kinds of bushes will sometimes put forth roots into the old moist nests of the wren and hedge-sparrow.

**Enormous Mushroom.**—A mushroom of the species Cow Boletus (*Boletus Bovinus*) has this week been got on the farm of Mr. Thomas Beesley, Higher Bartle Wood, Plumpton, which measured 43 inches in circumference, and weighed the extraordinary weight of 5 lbs.

**Prolific Hive of Bees.**—Mr. Anthony Balderston, of Barnfield, Mervith, has a hive of bees that swarmed twice in May; the plumb swarm of which swarmed twice in July. From one swarm (including the old one) he has at the present time five flourishing hives.

## Editor's Table.

### COPYING ARTICLES WITHOUT CREDIT.

THE Boston Cultivator, of 25th November, copies two articles from us without credit. The Tennessee Agriculturist copies an article in its November number, and during the past year several others; one of considerable length, which it says was written "by our friend R. L. Allen." This is not proper, it should credit it to the American Agriculturist. The American Farmer took a "Receipt for Curing Hams" some time since from us, which was afterward copied half over the Union, giving it (the American Farmer) credit; and in its number of the 29th November, it copies a column and a half of our Foreign Agricultural News without credit. Now these are small samples, which happen to be at hand this moment, and that weekly and monthly occur among our contemporaries; they also condense articles repeatedly from us, without giving credit to the source whence they draw them. We never do this intentionally, as will be seen by reference to our department of Foreign Agricultural News, also to the article Agricultural Shows, which appeared in our last number. It is our intention to be scrupulously exact in giving credit for everything, according to the strictest usage. We know the editors of the above papers intend to credit, but we certainly suffer, through *some one's* carelessness, and we think it can not be objected to, if we hereafter point out these omissions, and claim the credit which is justly due us.

We have been plundered of our Foreign News department without mercy, and on this point we feel a little sore; for we pay a large subscription annually for foreign journals, as they will rarely exchange; and to make up this department, it usually costs us ten times the labor that it does to write an equal amount of editorial matter. If any one has any doubts on this subject, let him, upon the arrival of a steamship, be in the receipt of 1000 to 1500 pages or so, of foreign journals, and set down to extract and express all the substance of these which he may think interesting or instructive to his readers, and he will then find out that it is pretty hard work; especially, if after being actively engaged in some business all day, he is obliged to rob himself of his regular hours of sleep in order to accomplish his task by a given time. This we do every month; and in consequence of several of our contemporaries continuing to copy these items, after repeated warning of the injustice they were doing us, we struck them from our exchange list. Since the above was written, we have received the Boston Cultivator of 2d inst., and Traveller of same date, both of which copy the "Receipt for Curing Hams," and give us credit. Very well, gentlemen, that will do. Will the Traveller now correct the misstatement it made of our opinions upon Ayrshires? We have sent it a marked notice three times, and yet it has paid no attention to it to our knowledge.

THE VEGETABLE KINGDOM; or Hand-Book of Plants and Fruits, by L. D. Chapin; with 140 Illustrations, a copious Glossary, &c., comprising part I. and II.; New York, James Lott, 156 Fulton street. This is a very pretty volume, comprising in both parts upward of 400 pages, handsomely illustrated. Mr. Chapin has devoted several years to fit himself for writing this work, and we have no doubt he has produced an excellent book, and one worthy the attention of the student of the vegetable creation. Price \$1.00, which we consider extremely cheap. For sale by Saxton & Miles.



REVIEW OF THE MARKET.

PRICES CURRENT IN NEW YORK, DECEMBER 15, 1843.

ASHES, Pots, .....	per 100 lbs.	\$4 50	to	\$4 56
Pearls, .....	do.	5 00	"	5 06
BACON SIDES, Smoked, .....	per lb.	3 1/2	"	4 1/2
In pickle .....	do.	3	"	4
BALE ROPE .....	do.	6	"	9
BARK, Quercitron .....	per ton	23 00	"	24 00
BARLEY .....	per bush.	52	"	56
BEANS, White .....	do.	1 25	"	1 75
BEEF, Mess .....	per bbl.	6 00	"	7 00
Prime .....	do.	4 00	"	5 00
Smoked .....	per lb.	6	"	7
Rounds, in pickle .....	do.	4	"	5
BEE SWAX, Am. Yellow .....	do.	28	"	30
BOLT ROPE .....	do.	12	"	13
BRISTLES, American .....	do.	25	"	65
BUTTER, Table .....	do.	12	"	15
Shipping .....	do.	6	"	10
CANDLES, Mould, Tallow .....	do.	9	"	12
Sperm .....	do.	31	"	38
Stearic .....	do.	20	"	25
CHEESE .....	do.	4	"	7
CIDER BRANDY, Eastern .....	per gal.	35	"	40
Western .....	do.	28	"	35
CLOVER SEED .....	per lb.	9	"	10
COAL, Anthracite .....	2000 lbs.	5 00	"	6 00
Sidney and Pictou .....	per chal.	6 00	"	6 50
CORDAGE, American .....	per lb.	11	"	12
CORN, Northern .....	per bush.	55	"	56
Southern .....	do.	53	"	54
COTTON .....	per lb.	7	"	11
COTTON BAGGING, Amer. hemp per yard.	do.	16	"	18
American Flax .....	do.	15	"	16
FEATHERS .....	per lb.	27	"	31
FLAX, American .....	do.	8	"	8 1/2
FLAX SEED, rough .....	per 7 bush.	9 00	"	9 25
clean .....	do.	—	"	—
FLOUR, Northern and Western .....	per bbl.	4 56	"	4 75
Fancy .....	do.	5 25	"	5 50
Southern .....	per bbl.	4 50	"	4 75
Richmond City Mills .....	do.	5 50	"	5 62
Rye .....	do.	3 00	"	3 25
HAMS, Smoked .....	per lb.	5	"	7
Pickled .....	do.	4	"	6
HAY .....	per 100 lbs.	40	"	45
HIDES, Dry Southern .....	per lb.	9	"	11
HEMP, Russia, clean .....	per ton.	185 00	"	190 00
American, water-rotted .....	do.	140 00	"	180 00
do dew-rotted .....	do.	90 00	"	140 00
HOPS .....	per lb.	6	"	8
HORNS .....	per 100	1 25	"	5 00
LARD .....	per lb.	5 1/2	"	7
LEAD .....	do.	3 1/2	"	4
Sheet and bar .....	do.	4	"	4 1/2
MEAL, Corn .....	per bbl.	2 62	"	2 75
Corn .....	per bbl.	12 00	"	12 50
MOLASSES, New Orleans .....	per gal.	23	"	30
MUSTARD, American .....	per lb.	16	"	31
OATS, Northern .....	per bush.	31	"	33
Southern .....	do.	26	"	30
OIL, Linseed, American .....	per gal.	75	"	80
Castor .....	do.	85	"	90
Lard .....	do.	55	"	65
OIL CAKE .....	per 100 lbs.	1 00	"	—
PEAS, Field .....	per bush.	1 25	"	—
PITCH .....	per bbl.	1 12 1/2	"	1 37
PLASTER OF PARIS .....	per ton.	2 00	"	2 25
Ground, in bbls. .....	per cwt.	50	"	—
PORK, Mess .....	per bbl.	10 50	"	11 38
Prime .....	do.	9 25	"	10 12
RICE .....	per 100 lbs.	2 37	"	3 00
ROSIN .....	per bbl.	65	"	95
RYE .....	per bush.	63	"	64
SALT .....	per sack	1 35	"	1 50
SHOULDERS, Smoked .....	per lb.	3	"	4 1/2
Pickled .....	do.	3	"	4
SPIRITS TURPENTINE, Southern .....	per gal.	36	"	38
SUGAR, New Orleans .....	per lb.	5	"	7 1/2
SUMAC, American .....	per ton	25 00	"	27 50
TALLOW .....	per lb.	6	"	7 1/2
TAR .....	per bbl.	1 25	"	1 50
TIMOTHY SEED .....	per 7 bush.	13 00	"	14 00
TOBACCO .....	per lb.	3	"	6 1/2
TURPENTINE .....	per bbl.	2 62	"	2 87
WHEAT, Western .....	per bush.	1 00	"	1 05
Southern .....	do.	90	"	1 00
WHISKEY, American .....	per gal.	23	"	25
WOOL, Saxony .....	per lb.	35	"	50
Merino .....	do.	30	"	35
Half-blood .....	do.	25	"	27
Common .....	do.	18	"	22

New York Cattle Market—December 11.

At market, 900 beef Cattle, (200 from the south), 35 Cows and Calves, and 1500 Sheep and Lambs.

Prices.—Beef Cattle.—The market dull and declining, and we quote \$4.25 a \$4.50 to \$5.00 a \$5.25 for the best retailing. 150 unsold.

Cows and Calves.—All taken at \$18 a \$29.

Sheep and Lambs.—Sales of the latter at \$1.12 1/2 a \$2.25, and of Sheep at 1.12 1/2 to \$4.50. 150 unsold.

Hay.—Sales at 5s. a 6s. per cwt. for loose.

REMARKS.—Ashes are dull, and the sales unimportant. Coal, the same. Cotton, on the arrival of the Acadia, declined from 1/2 to 1/4 of a cent per lb.; but the price since has been gradually recovering, and it is now the same as per our last. This rise has not taken place so much in consequence of the ascertained short crop, as from a general advance in most other agricultural products, manufactures, and labor; the abundance of money and low rate of interest also have their effect, and it seems to be the settled opinion, that the price of cotton is more likely to advance during the season than recede. The transactions the past week have been large, with a buoyant market. Export from the United States since September last, 140,306 bales; same time last year, 220,862; same time year before, 163,845. Flour.—A steady business seems to be doing in this article, at a trifling reduction. Grain of all kinds in fair demand. Hay and Hemp dull. Lead, firm. Molasses and Sugar, little doing, and small stocks on hand. Naval Stores, without change. Provisions of all kinds quiet. Rice, a little more active. Seeds, firm for the season. Tobacco dull. Wool has increased in sales, and the foreign stock on hand has not been so light for several years. The prices are firm, and we are of opinion will gradually advance.

Money is ranging from 2 1/2 to 4 per cent., on good paper, and is plenty as usual.

Stocks are very active, and about the same as our last—perhaps a slight advance.

Business generally is brought to a close, and has been an uncommonly good one the past season.

Hogs.—At Cincinnati the price has rather advanced within a few days; and this, taken in connexion with a considerable advance in cooperage and freights, has rendered buyers somewhat inclined to hold off a while. A fair quotation now for good light hogs is \$2.30 a \$2.40, though we heard of one sale on Friday, a small lot, at \$2.00. Fair figures for the heavier descriptions, are \$2.50 a \$2.75; a large lot, however, averaging between 260 and 270 lbs., was sold at \$2.70. Some two or three packing houses did a very heavy business last week, but the aggregate packed was we think considerably less than during any other week since operations fairly commenced.

ANSWER TO CORRESPONDENTS.—G. S. T. The price of the fowls you inquire about, is \$3 per pair, in coop, delivered here. Any number of birds over, \$1 each.

W. T. We have sent on to Boston to get cranberry sod, and silver fir-seed, but have no answer yet. Our directions were, to ship the box to Messrs. J. H. & R. A. G., via New Orleans.

F. N., will find himself answered about cream frothing, page 360. A Squatter, is answered page 354.

J. J. McCaughan, A. Beatty, L. F. Allen, F. J. Betts, H., J. H. Lyman, S. B. Parsons, A. S., R. L. Allen, in our next.

The Prairie Farmer.—We are much obliged to Mr. Wright, editor of the Prairie Farmer, for the subscriptions forwarded us for the Agriculturist, and are happy to say in return, that we have recently received one for him, from a distinguished member of the British Parliament. He will please send us a copy complete of vol. 3d, and upon its reception, we shall forward it immediately to England. The Tennessee Agriculturist will please forward us its vol. 4th, the same gentleman having also subscribed for that.

HOVEY'S HORTICULTURAL MAGAZINE.

We have recently been appointed agents for this periodical, justly considered the most valuable of its kind in the United States. Any person subscribing through us will be promptly served, and we invite all interested in this subject to call and examine the work.

For any of the above works, or periodicals, or books of any kind, address SEXTON & MILES, 205 Broadway.

Price \$3 a year.

American Agriculturist Almanac for 1844.

This work comprises 64 pages, double columns octavo, with numerous wood cuts, price \$8 per hundred, 12 1/2 cents each. In the contents will be found—Agricultural Statistics of the United States—Aspects and Nodes—Astronomical Calendars for Montreal, Boston, New York, Philadelphia, Charleston, and New Orleans—Characters and Names of the Planets, &c.—Farmers' Northern Calendars, with particular directions for the management of the Farm, Cattle, Fruit and Flower Garden, &c.—Southern Calendars for the Planter and Farmer, with explicit directions for the culture and harvesting of Cotton, Rice, Tobacco, &c., &c.

### PROPOSAL FOR A COURSE OF LECTURES ON AGRICULTURAL CHEMISTRY.

By D. Pereira Gardner, M. D. Formerly Professor of Chemistry and Botany in Hampden Sidney College, Va., Member of the Lyceum of Natural History, New York.

The Course is intended to be of service to the practical agriculturist, and therefore the methods of discovering and estimating the amount of useful saline matters in the soil will be fully examined. Portions of Botany, Vegetable and Animal Physiology, will be included, to enable the farmer to understand all that relates to the food of plants and animals. Geology, so far as it is necessary to the study of soils and the art of drainage, will be introduced. The action of Manures, and the quantity that may be economically applied, will also be considered.

The Course will be fully illustrated by drawings, minerals, geological specimens, chemical experiments, and analysis.

The number of lectures will be twenty, distributed in nearly the following order:—

One Lecture—On the Constitution of the Atmosphere and Gaseous Matters.

One Lecture—On the Essential Structure of Vegetables.

One Lecture—On the Supply of Gaseous Food to Plants.

Two Lectures—On the Physical and Chemical Constitution of the Soil, and its relations to moisture and drought, the theory of drainage, fallows, &c.

One Lecture—On the Organic Food of Plants.

One Lecture—On the Mineral Food of Plants.

One Lecture—On the Influence of Gases, Water, and Saline Matters, on the production of nutritious substances in plants.

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